



Traffic Impact Study

for:

East South Street Residential Project

In the City of Anaheim

Prepared for:

The City of Anaheim

October, 2017

Kimley»»Horn

TRAFFIC IMPACT STUDY
FOR THE
EAST SOUTH STREET RESIDENTIAL PROJECT

IN THE
CITY OF ANAHEIM

Prepared for:

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INTRODUCTION

This traffic impact study has been prepared to evaluate the project-related traffic impacts associated with the proposed redevelopment of an industrial and warehouse site located at 901 East South Street in the City of Anaheim with a proposed residential project, known as the East South Street Residential Project.

PROJECT DESCRIPTION

Existing Site

The project site is located at 901 East South Street, and is bounded by East Santa Ana Street to the north, industrial buildings to the east, the Metrolink Rail tracks and residential development to the west, and East South Street to the south. The project site is shown in its regional setting on Figure 1.

The site is currently comprised of five industrial and warehouse buildings occupied by a business known as The Freeman Corporation. The Freeman business has two driveways on East South Street, providing access to the employee parking lot; and a driveway on East Santa Ana Street, providing access to the warehouse buildings for both trucks and workers' vehicles.

Proposed Project

The proposed project would demolish the existing buildings and construct the East South Street Residential Project, consisting of 72 single-family homes, 160 townhomes, and 314 apartments, for a total of 546 dwelling units. The northern portion of the site contains 145 dwelling units (72 single-family homes and 73 townhomes), and the southern portion contains 401 dwelling units (87 townhomes and 314 apartments). The project site plan is shown on Figure 2. Access to the site would be provided via three driveways – one on East Santa Ana Street, and two on East South Street. A detailed discussion of the proposed site access and circulation is provided on page 26 of this report.

The project site is a designated Residential Opportunity site in the City's Housing Element of the General Plan, with a land use designation of Low Medium and Medium residential.

ANALYSIS SCENARIOS AND METHODOLOGY

This traffic impact study has been prepared in accordance with the City of Anaheim *Criteria for Preparation of Traffic Impact Studies* and complies with the Orange County Congestion Management Plan (CMP). There are no designated CMP facilities in the project study area; therefore, a separate CMP analysis is not required.

Analysis Scenarios

This traffic analysis will provide an evaluation of morning and evening peak hour operations for the following scenarios:

- Existing Conditions
- Existing Plus Project Conditions
- 2019 Near-Term (Cumulative Conditions) without Project
- 2019 Near-Term (Cumulative Conditions) with Project

The following study locations are included in the analysis:

Signalized Intersections:

1. Anaheim Boulevard at E. Santa Ana Street
2. East Street at E. Santa Ana Street
3. Anaheim Boulevard at E. South Street
4. East Street at E. South Street
5. State College Boulevard at E. South Street
6. East Street at Ball Road
7. State College Boulevard at Ball Road

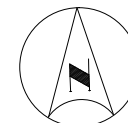
Unsignalized Intersections (Project Driveways):

- D1. Project Driveway on E. Santa Ana Street
- D2. West Project Driveway on E. South Street
- D3. East Project Driveway on E. South Street

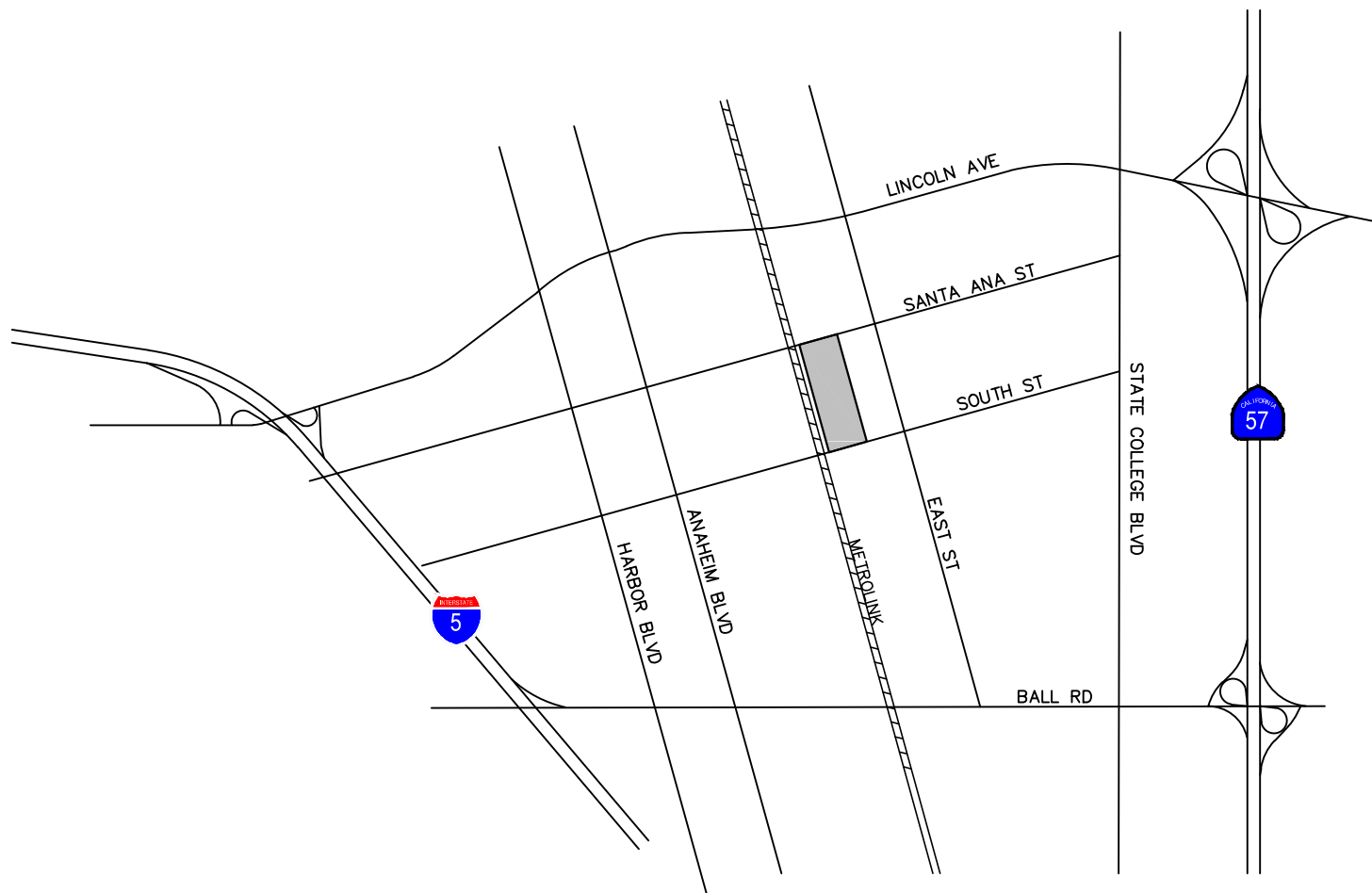
Roadway Segments:

1. E. Santa Ana Street – Anaheim Boulevard to East Street
2. E. Santa Ana Street – East Street to State College Boulevard
3. E. South Street – Anaheim Boulevard to East Street
4. E. South Street – East Street to State College Boulevard
5. E. Ball Road – East Street to State College Boulevard
6. East Street – E. Santa Ana Street to E. South Street
7. East Street – E. South Street to E. Vermont Avenue
8. State College Boulevard – E. Vermont Avenue to E. Ball Road

Study intersection and roadway segment locations are shown on Figure 3.




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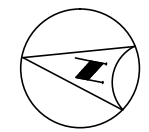
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FIGURE 1
VICINITY MAP

LEGEND:

 = Project Site





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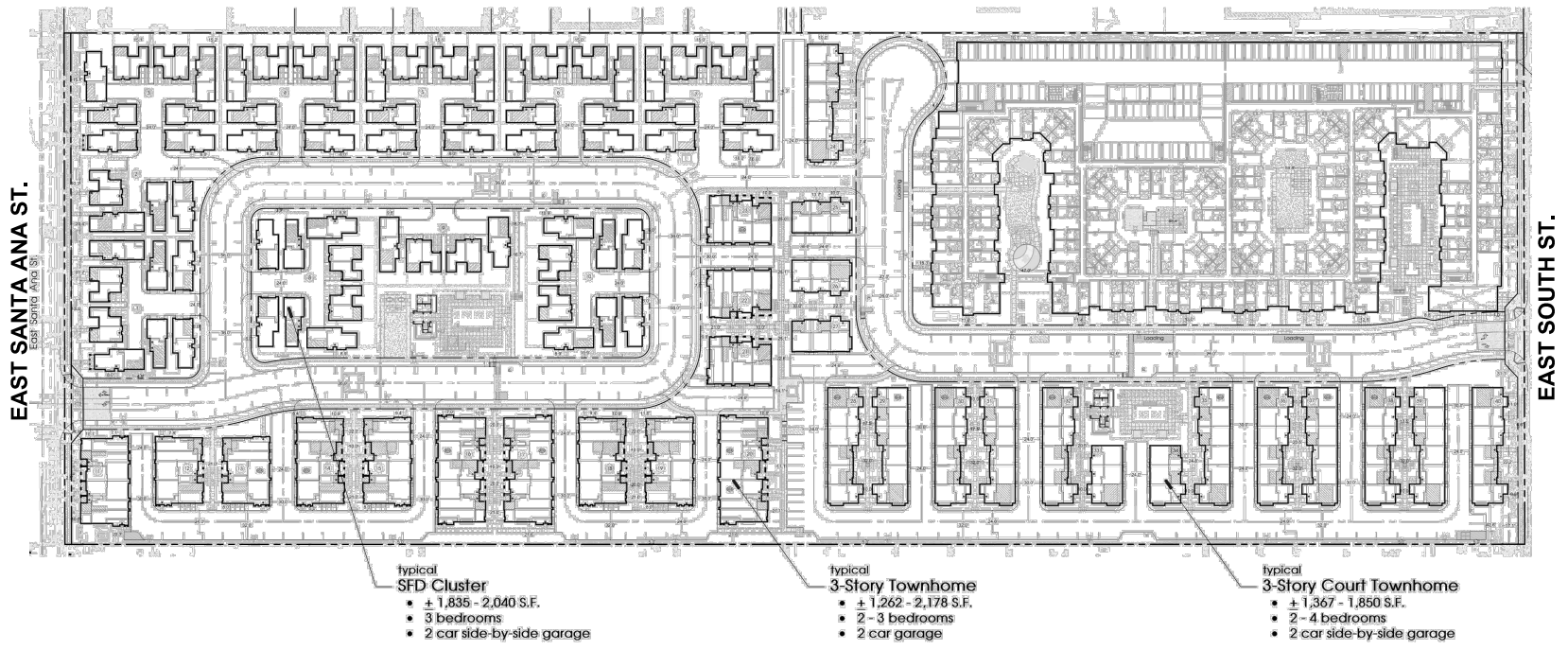


FIGURE 2
PROJECT SITE PLAN

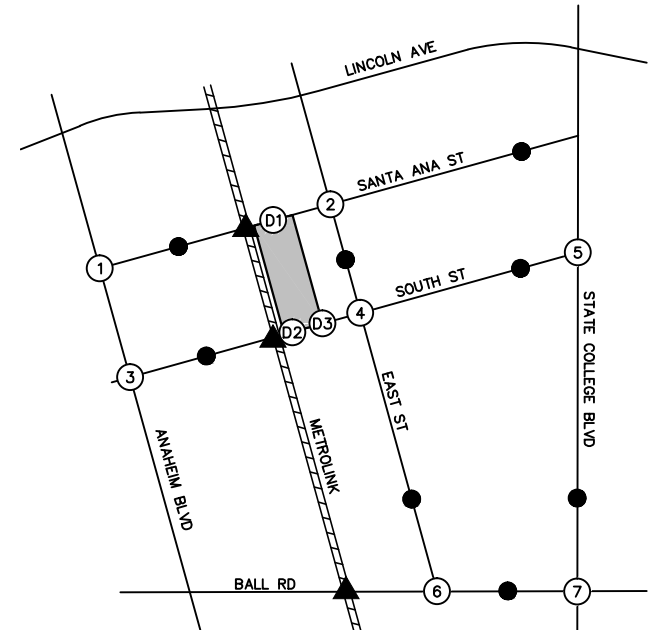
SOURCE: THE SHOPOFF GROUP (AUGUST, 2017)





NOT TO SCALE

<p>1. Anaheim Blvd at Santa Ana St</p>	<p>2. East St at Santa Ana St</p>	<p>3. Anaheim Blvd at South St</p>	<p>4. East St at South St</p>
<p>5. State College Blvd at South St</p>	<p>6. East St at Ball Rd</p>	<p>7. State College Blvd at Ball Rd</p>	<p>D1. Driveway 1 on E. Santa Ana St</p>
<p>D2. Driveway 2 on E. South St</p>	<p>D3. Driveway 3 on E. South St</p>		



LEGEND:

- = Signal
- = Stop Sign
- = Study Intersection
- = Project Site
- = Metrolink At-Grade Crossing
- = Roadway Segment

FIGURE 3
EXISTING LANE CONFIGURATION AND TRAFFIC CONTROL



Analysis Methodology

The traffic analysis will focus on the project's off-site traffic-related impacts at the study intersections and on the study roadway segments. In accordance with the City of Anaheim and the County of Orange Congestion Management Plan (CMP), intersection operation is evaluated using the Intersection Capacity Utilization (ICU) methodology, which provides a comparison of the theoretical hourly vehicular capacity of an intersection to the number of vehicles passing through that intersection during the peak hour. The results of the evaluation are reported in terms of a volume-to-capacity (v/c) ratio, which corresponds to a Level of Service (LOS). Level of Service is represented by letter grades A through F, with LOS A representing free-flow conditions, and LOS F representing congested, over-capacity conditions.

The unsignalized project driveways will be analyzed using the Highway Capacity Manual (HCM) delay methodology. The procedure for analysis of stop-controlled intersections determines the average total delay, expressed in seconds of delay per vehicle, for all movements from the stop-controlled minor street, and the left turns from the major street. Delay values are calculated based on the relationship between traffic on the major street and the availability of acceptable "gaps" in this stream through which conflicting traffic movements can be made. Level of Service conditions for each intersection are defined based on the weighted average of the delay estimates for each individual movement on the worst case (highest delay) intersection approach.

The following chart identifies each Level of Service category, and the corresponding intersection capacity utilization values and delay values for each:

Level of Service Ranges		
Level of Service (LOS)	ICU (Signalized Intersections)	Delay (sec / veh) (Unsignalized Intersections)
A	≤ 0.600	0 – 10
B	0.601 – 0.700	> 10 – 15
C	0.701 – 0.800	> 15 – 25
D	0.801 – 0.900	> 25 – 35
E	0.901 – 1.000	> 35 – 50
F	> 1.000	> 50

LOS = Level of Service
ICU = Intersection Capacity Utilization
sec / veh = seconds per vehicle

Daily Roadway Analysis

Roadway segment Level of Service is estimated by comparing 24-hour traffic volumes on the roadway segment to the daily roadway capacity, based on its functional classification. This comparison results in a volume-to-capacity (v/c) ratio, which represents the percentage of the daily vehicular capacity that is required to accommodate the daily traffic volume. The following chart presents the daily roadway capacity for each roadway classification.

ICU Level of Service Ranges	
Roadway Classification	LOS E Daily Capacity (vehicles per day)
Eight lanes divided	75,000
Six lanes divided	56,300
Four lanes divided	37,500
Four lanes undivided	25,000
Two lanes divided	22,000
Two lanes undivided	12,500
<u>Source:</u> County of Orange: Guidance for Administration of the Orange County Master Plan of Arterial Highways	

Performance Criteria

The City of Anaheim Level of Service standard for intersection operation is Level of Service D or better. The City of Anaheim Level of Service standard for arterial roadways is LOS C or better.

Significance Thresholds

Based on the City of Anaheim standards, a project impact would be considered significant in accordance with the following:

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.700 – 0.800	Equal to or greater than 0.050
D	> 0.800 – 0.900	Equal to or greater than 0.030
E or F	> 0.900	Equal to or greater than 0.010
For purposes of this calculation, the "Final V/C Ratio" shall mean the future V/C ratio at an intersection considering impacts with Project, Ambient Growth and Related Projects, but without any proposed mitigation.		

EXISTING TRANSPORTATION SYSTEM

Existing Roadway System

Regional access to the site is provided by the I-5 Freeway, located approximately 1.6 miles to the west of the project site; and the SR-57 Freeway, located approximately 2.0 miles to the east of the site. The study intersection of State College Boulevard at Ball Road is designated as a “Critical Intersection” in the City of Anaheim’s General Plan. Critical Intersections would require enhanced lane geometry at buildout, with up to two left-turn lanes, three through lanes, and one right-turn lane in each direction. Local access to the project vicinity is provided by local arterial and commuter roadways.

East Santa Ana Street is an east-west two-lane undivided roadway extending from just west of the I-5 Freeway to State College Boulevard. Santa Ana Street forms the north boundary of the project site. Santa Ana Street is classified as a Collector Street west of Olive Street and east of East Street on the City of Anaheim General Plan Circulation Element; there is no designation on the Circulation Element for the segment of Santa Ana Street between Olive Street and East Street. Along the project frontage, Santa Ana Street is a two-lane undivided roadway, with single-family residential units on the north side of the street. On-street parking is generally permitted on both sides of the roadway. The posted speed limit is 30 miles per hour (mph).

East South Street is an east-west two-lane undivided roadway that forms the south boundary of the project site. South Street is classified as a Collector Street on the City’s General Plan Circulation Element. On-street parking is generally permitted on both sides of the roadway. The posted speed limit is 35 mph.

East Street is a north-south Secondary Arterial located less than 1,000 feet to the east of the project site. East Street is generally a four-lane roadway with a two-way left-turn lane in some areas, and a center stripe in others. Between South Street and Vermont Avenue, East Street provides one lane in each direction and a center turn lane on the northern portion of the segment, and one northbound lane and two southbound lanes and a center turn lane on the southern portion. On-street parking is prohibited on both sides and the posted speed limit is 35 mph.

Existing Transit Service

Regional public transportation services for the project area are provided by the Metrolink and Amtrak rail services. The Metrolink and Amtrak rail tracks are located just west of the project site, with at-grade crossings along several east-west roadways, including Santa Ana Street and South Street. Metrolink and/or Amtrak trains run approximately every 15 minutes during the morning and evening peak hours, and approximately once per hour during the off-peak. The Anaheim Regional Transportation Intermodal Center (ARTIC) is located approximately 3.5 miles to the southeast of the project site.

Public transportation service for the immediate project area is provided by the Orange County Transportation Authority (OCTA). The OCTA bus stops located nearest to the project site are:

- The southwest and southeast corners the intersection of Anaheim Boulevard at South Street (approximately ½ mile to the west of the project),
- The southwest corner of the intersection of State College Boulevard at South Street (approximately ¾ mile to the east of the project),
- The southeast and northwest corners of the intersection of Lincoln Avenue at East Street (approximately ¾ mile to the north of the project), and
- The northeast and southeast corners of the intersection of Ball Road at East Street (approximately 1 mile to the south).

The following OCTA bus routes serve the project vicinity:

Route 42 operates between the City of Seal Beach and the City of Orange, traveling along Lincoln Avenue in the project vicinity. Route 42 operates seven days a week, from approximately 4:10 AM to 11:45 PM on weekdays, and 5:40 AM to 9:15 PM on weekends and holidays; with 5 to 15-minute headways (the time interval between bus arrivals) throughout the day.

Route 46 operates between the City of Los Alamitos and the City of Orange, traveling in an east-west direction via Ball Road. Route 46 operates seven days a week, from approximately 4:30 AM to midnight on weekdays and from approximately 6:30 AM to 8:30 PM on weekends and Holidays; with 30-minute to one-hour headways throughout the day.

Route 47 operates between the City of Fullerton and the City of Newport Beach, traveling in a north-south direction along Anaheim Boulevard in the project vicinity. Route 47 operates seven days a week, from approximately 3:45 AM to 11:50 PM on weekdays, and 5:00 AM to 10:55 PM on weekends and holidays; with 10-minute to one-hour headways throughout the day.

Route 57/57X operates between the Cities of Brea and Newport Beach, traveling along State College Boulevard in the project vicinity. Service is provided Monday through Friday from approximately 4:00 AM to 2:10 AM, and on weekends and holidays, from 5:00 AM to midnight; with 10 to 20-minute headways. Express runs designated as 57X have limited stops between Orangethorpe Avenue and Sunflower Avenue on weekdays.

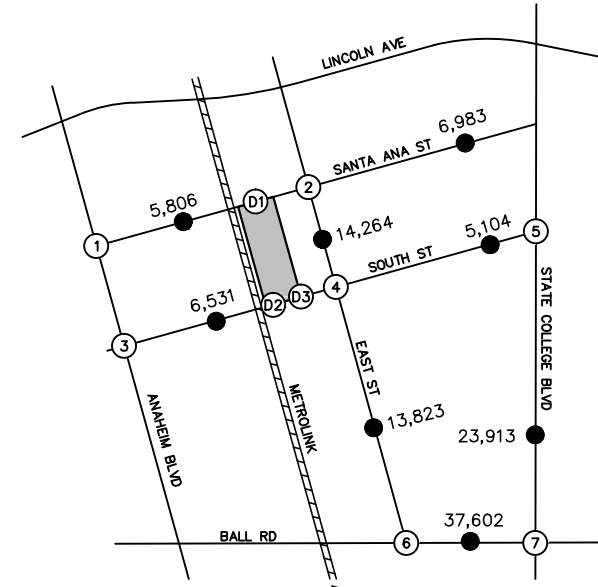
Existing Traffic Volumes

Existing daily and peak hour turning movement traffic count data was collected in February, 2017 at the study intersections and on the roadway segments. Peak hour turning movement traffic count data for the intersection of Anaheim Boulevard and Santa Ana Street was provided by the City. Existing lane configurations and traffic control are shown on Figure 3 (previously referenced). Existing traffic volumes at the study locations are shown on Figure 4. Copies of the traffic count data worksheets are provided in *Appendix A*.



NOT TO SCALE

<p>1. Anaheim Blvd at Santa Ana St</p> <p>33/54 854/715 41/65 39/54 178/221 65/49</p> <hr/> <p>56/46 204/171 87/42</p> <p>31/72 494/1059 34/48</p>	<p>2. East St at Santa Ana St</p> <p>36/44 704/442 60/92 75/70 120/187 61/35</p> <hr/> <p>94/60 171/133 85/32</p> <p>32/50 334/647 30/38</p>	<p>3. Anaheim Blvd at South St</p> <p>20/25 972/711 35/60 55/53 122/172 153/121</p> <hr/> <p>32/18 106/137 45/30</p> <p>14/48 470/1034 43/90</p>	<p>4. East St at South St</p> <p>61/49 745/392 42/63 75/61 97/190 80/27</p> <hr/> <p>47/43 159/131 82/38</p> <p>33/66 264/621 33/59</p>
<p>5. State College Blvd at South St</p> <p>163/208 1319/818 15/19 9/14 9/26 28/31</p> <hr/> <p>221/150 8/21 80/43</p> <p>71/128 815/1194 18/59</p>	<p>6. East St at Ball Rd</p> <p>406/295 443/302 173/340 931/1085</p> <hr/> <p>168/347 980/1165</p>	<p>7. State College Blvd at Ball Rd</p> <p>252/151 1029/465 251/256 86/191 848/971 263/86</p> <hr/> <p>219/242 825/1063 324/164</p> <p>120/302 486/969 110/171</p>	<p>D1. Driveway 1 on E. Santa Ana St</p> <p>184/235 15/0</p> <hr/> <p>292/216 30/0</p> <p>15/26 8/14</p>
<p>D2. Driveway 2 on E. South St</p> <p>2/3 233/304</p> <hr/> <p>342/241</p>	<p>D3. Driveway 3 on E. South St</p> <p>1/28 0/15 21/1 233/304</p> <hr/> <p>38/2 342/241</p>		



LEGEND:

- = Project Site
- X = Study Intersection
- XX/YY = AM / PM Peak Hour Turning Movement Volumes
- X,XXX = ADT Volumes

**FIGURE 4
EXISTING TRAFFIC VOLUMES**

EXISTING OPERATING CONDITIONS

Peak Hour Intersection Operations

Intersection Level of Service analysis was conducted for the morning and evening peak hours using the analysis procedures and assumptions described previously in this report. The results of the intersection analysis for Existing Conditions are shown on Table 1. Review of this table indicates that all study intersections are currently operating at an acceptable Level of Service (LOS D or better) in both peak hours. Intersection analysis worksheets are provided in *Appendix B*.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted based on the roadway capacities presented previously in this report. For analysis purposes, for roadway segments that have a varying lane configuration along the segment, the lowest-capacity configuration and capacity for that segment are assumed. The results of the roadway analysis for Existing Conditions are shown on Table 2. Review of this table indicates that each of the study roadway segments are currently operating at Level of Service C or better.

TRIP GENERATION

Existing Site Trip Generation

The project site is currently comprised of five industrial and warehouse buildings occupied by a business known as The Freeman Corporation. The Freeman business has two driveways on East South Street, providing access to the employee parking lot, and a driveway on Santa Ana Street, providing access to the warehouse buildings for both trucks and workers' vehicles.

As part of the proposed project, the Freeman buildings will be removed, and therefore, the existing trips currently generated by the Freeman operation will be eliminated from the site. The existing trips generated by the current operation were determined through traffic counts taken at the existing site driveways on East Santa Ana Street and East South Street. The daily and peak hour trips currently generated by the Freeman operation are shown on Table 3. These trips will be deducted from the trip generation estimates for the proposed project, to determine the net new trips that will result from the project.

It should be noted that the existing traffic generated by the Freeman business includes 230 big rig truck trips per day, entering and exiting the site at the East Santa Ana Street driveway. This truck traffic will be eliminated as a result of the proposed residential project.

TABLE 1
SUMMARY OF INTERSECTION OPERATION
EXISTING CONDITIONS

Int. #	Intersection	AM Peak Hour		PM Peak Hour	
		ICU/Delay	LOS	ICU/Delay	LOS
1	Anaheim Boulevard at E. Santa Ana Street	0.616	B	0.659	B
2	East Street at E. Santa Ana Street	0.517	A	0.532	A
3	Anaheim Boulevard at E. South Street	0.573	A	0.634	B
4	East Street at E. South Street	0.741	C	0.648	B
5	State College Boulevard at E. South Street	0.660	B	0.497	A
6	East Street at Ball Road	0.627	B	0.736	C
7	State College Boulevard at Ball Road	0.723	C	0.725	C
D1	E. Santa Ana Street Driveway	11.5	B	11.0	B
D2	E. South Street West Driveway	9.4	A	9.9	A
D3	E. South Street East Driveway	9.5	A	11.1	B

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Intersection operation is expressed in volume-to-capacity (v/c) ratio for signalized intersections, and average delay for unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 2
SUMMARY OF ROADWAY SEGMENT OPERATION
EXISTING CONDITIONS

Roadway Segment	Lane Configuration	LOS E Capacity	Existing ADT	V / C	LOS
E. Santa Ana Street					
Anaheim Boulevard to East Street	2 lanes undivided	12,500	5,806	0.46	A
East Street to State College Boulevard	2 lanes undivided	12,500	6,983	0.56	A
E. South Street					
Anaheim Boulevard to East Street	2 lanes undivided	12,500	6,531	0.52	A
East Street to State College Boulevard	2 lanes undivided	12,500	5,104	0.41	A
E. Ball Road					
East Street to State College Boulevard	6 lanes divided	56,300	37,602	0.67	B
East Street					
E. Santa Ana Street to E. South Street	4 lanes undivided ¹	25,000	14,264	0.57	A
E. South Street to E. Vermont Avenue	2 lanes divided ¹	22,000	13,823	0.63	B
State College Boulevard					
E. Vermont Avenue to E. Ball Road	6 lanes divided	56,300	23,913	0.42	A

V / C = Volume-to-Capacity Ratio

LOS = Level of Service

¹ The configuration varies along this segment. The configuration and capacity shown reflect the lowest capacity configuration.

TABLE 3
SUMMARY OF PROJECT TRIP GENERATION
EAST SOUTH STREET RESIDENTIAL PROJECT

Land Use	ITE Code	Unit	Trip Generation Rates ¹							
			Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Based on Existing Driveway Counts										
Industrial Warehouse (Existing Freeman Corporation)	NA	NA								
Single-Family Detached Housing	210	DU	9.520	0.188	0.563	0.750	0.630	0.370	1.000	
Apartment	220	DU	6.650	0.102	0.408	0.510	0.403	0.217	0.620	
High-Rise Residential Condominium/Townhouse	232	DU	4.180	0.065	0.275	0.340	0.236	0.144	0.380	
Trip Generation Estimates										
Land Use	Quantity	Unit	Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
			Existing Land Use to be Removed							
Industrial Warehouse (Existing Freeman Corporation)			-1,097	-104	-26	-130	-3	-96	-99	
Proposed Land Use										
Single-Family Detached Housing	72	DU	685	14	41	55	45	27	72	
Apartment	314	DU	2,088	32	128	160	127	68	195	
High-Rise Residential Condominium/Townhouse	160	DU	669	10	44	54	38	23	61	
Total Residential Project Trips			3,442	56	213	269	210	118	328	
Total Net New Trips			2,345	-48	187	139	207	22	229	
¹ Source: Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> , 9th Edition										

Existing Freeman Site Truck Trips (4-axle)			230	7	10	17	0	1	1
Note: This is a subset of the Existing Freeman Corporation trips - These truck trips enter and exit the site via the driveway on E. Santa Ana Street.									

Proposed Project Trip Generation

Daily and peak hour trips for the proposed project were estimated based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition) rates for the proposed residential unit types:

- Single-Family (Land Use 210);
- Apartments (Land Use 220); and
- High-Rise Residential Condominium/Townhouse (Land Use 232).

The ITE trip generation rates and the resulting project trip generation estimates for the residential project are also shown on Table 3 (previously referenced). As discussed above, a trip credit is applied, to account for the site trips generated by the existing site uses. When the existing site trips are taken into account, the project is estimated to generate approximately 2,345 net new daily trips, with 139 net new trips in the morning peak hour (48 fewer inbound and 187 additional outbound trips) and 229 net new trips in the evening peak hour (207 inbound and 22 outbound trips).

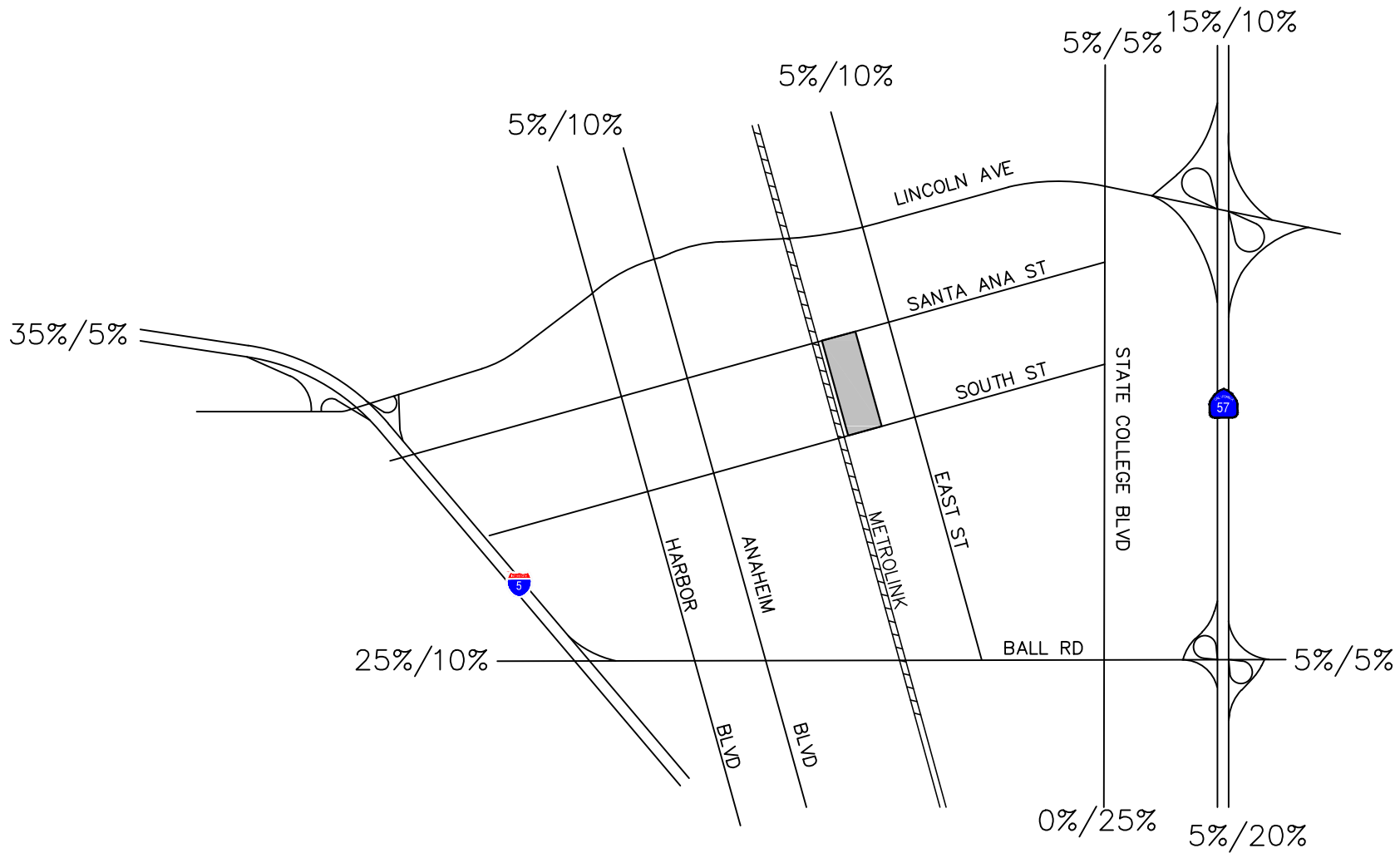
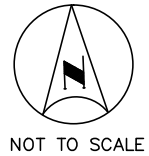
Review of the trip generation estimates for the existing industrial and warehouse development on the site, compared to the proposed residential project reveals that the proposed development will result in a shift of traffic patterns to and from the site. The traffic patterns for the existing operations are typical of employment uses, with a heavier traffic flow toward the site (inbound) in the morning peak hour, and heavier traffic flow away from the site (outbound) in the evening peak hour. The proposed residential project would consist of primarily residential uses, which would have the reverse traffic patterns – heavier traffic flow outbound in the morning peak hour, and heavier traffic flow inbound toward the site in the evening peak hour.

As a result, while the proposed project will result in an overall increase in trips on a daily basis, there will be a reduction in trips on some movements and an increase on others in the morning and evening peak hours. This is accounted for in the project trip distribution and assignment, as discussed in the next section.

Trip Distribution and Assignment

Trip distribution assumptions for the project were developed individually for the existing site uses, and for the proposed residential project. Trip distribution assumptions for the existing employment uses were based on observed traffic patterns to and from the project site, and on likely origins and destinations of the site operations. Since the development on the site will be removed, the existing development trips were distributed as negative trips.



Trip distribution assumptions for the proposed residential development were based on likely origins and destinations of residents and visitors, the location of the site driveways relative to the location and number of residential units throughout the site, and the transportation network available for those trips. Distribution assumptions were submitted to City staff for review and concurrence. Trip distribution assumptions are shown on Figure 5.



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FIGURE 5
TRIP DISTRIBUTION:
EXISTING DEVELOPMENT / PROPOSED PROJECT

LEGEND:

-  = Project Site
-  = Study Intersection
- XX%/YY% = Existing Development / Proposed Project Trip Distribution



Based on these two trip distribution patterns, the net new trips to be added (or subtracted, if appropriate, due to the shift in traffic patterns from employment to residential) to the street system by the proposed project were combined and calculated. The resulting project trips are shown on Figure 6. As described earlier, negative project volumes are the result of the shift in traffic patterns from employment-oriented uses, with heavier inbound flows in the morning and outbound in the evening; to residential uses, with reverse traffic flows.

EXISTING PLUS PROJECT CONDITIONS

This section addresses the impacts associated with adding project-related trips to Existing Conditions traffic volumes. The Existing Plus Project scenario is a hypothetical scenario which assumes that the Project would be fully implemented at the present time, with no other changes to area traffic volumes or to the street network serving the site. This analysis is required by the California Environmental Quality Act (CEQA), and assumes full development of the Project and full absorption of Project traffic on the circulation system at the present time.

Peak Hour Intersection Operations

Project-related trips were added to existing traffic volumes to develop forecasts for the Existing Plus Project Condition. The resulting peak hour and daily traffic volumes for this scenario are shown on Figure 7. Intersection Level of Service analysis was conducted for the morning and evening peak hours and the results are shown on Table 4. Review of this table indicates that all study intersections would continue to operate at an acceptable Level of Service (LOS D or better) in both peak hours with the addition of project traffic. Each of the unsignalized project driveways will operate at LOS C or better during both peak hours. Intersection analysis worksheets are provided in *Appendix B*.

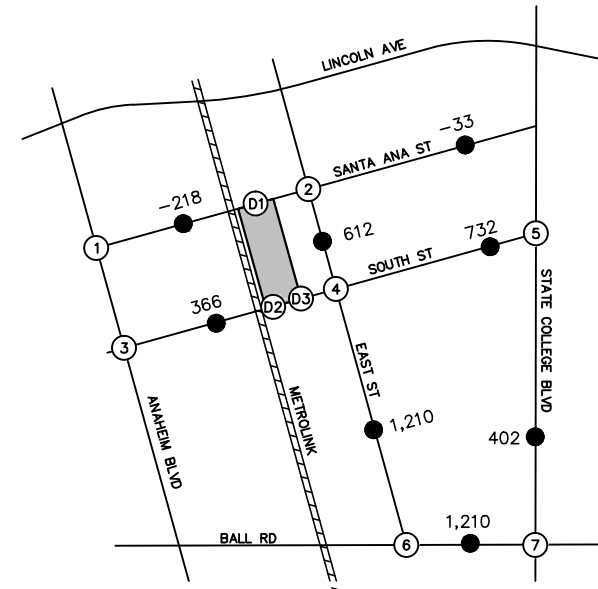
Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the study roadway segments and the results of are summarized on Table 5. Review of this table indicates that the study roadway segments would continue to operate at Level of Service C or better with the addition of project traffic.



NOT TO SCALE

<p>1. Anaheim Blvd at Santa Ana St</p>	<p>2. East St at Santa Ana St</p>	<p>3. Anaheim Blvd at South St</p>	<p>4. East St at South St</p>
<p>5. State College Blvd at South St</p>	<p>6. East St at Ball Rd</p>	<p>7. State College Blvd at Ball Rd</p>	<p>D1. Driveway 1 on E. Santa Ana St</p>
<p>D2. Driveway 2 on E. South St</p>	<p>D3. Driveway 3 on E. South St</p>		



LEGEND:

= Project Site

= Study Intersection

XX/YY = AM / PM Peak Hour Turning Movement Volumes

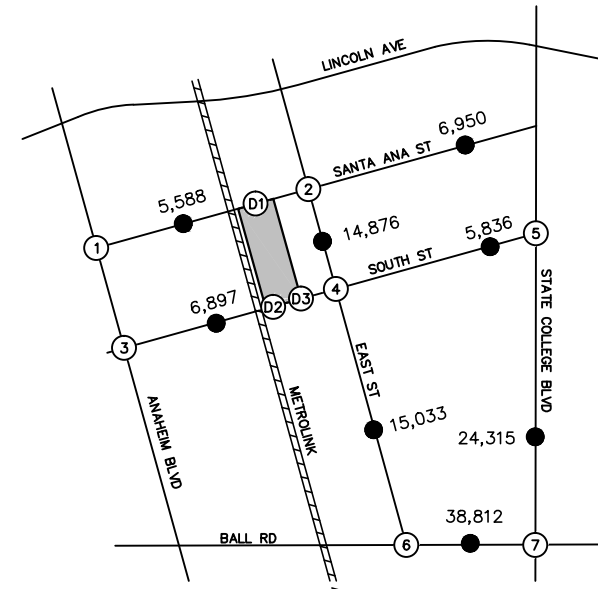
X,XXX = ADT Volumes

**FIGURE 6
PROJECT-RELATED TRAFFIC VOLUMES**



NOT TO SCALE

<p>1. Anaheim Blvd at Santa Ana St</p> <pre> 33/54 ↓ 836/736 ↓ 26/74 ↓ 39/44 ← 178/221 ← 65/43 ↓ 56/46 204/171 87/42 ↓ 31/72 516/1049 25/54 ↑ 37/81 349/652 41/38 </pre>	<p>2. East St at Santa Ana St</p> <pre> 36/50 ↓ 705/457 ↓ 60/92 ↓ 75/70 ← 114/196 ← 58/46 ↓ 99/62 176/131 113/47 ↓ 37/81 349/652 41/38 </pre>	<p>3. Anaheim Blvd at South St</p> <pre> 20/25 ↓ 972/705 ↓ 17/81 ↓ 77/43 ← 122/172 ← 167/115 ↓ 32/18 106/137 45/30 ↓ 14/48 461/1040 32/104 </pre>	<p>4. East St at South St</p> <pre> 59/74 ↓ 766/403 ↓ 49/67 ↓ 76/69 ← 97/219 ← 80/27 ↓ 73/49 189/140 139/64 ↓ 43/121 267/644 33/59 </pre>
<p>5. State College Blvd at South St</p> <pre> 160/219 ↓ 1319/818 ↓ 15/19 ↓ 9/14 ← 9/26 ← 28/31 ↓ 232/150 8/21 106/55 ↓ 75/154 815/1194 18/59 ↑ 186/419 931/1085 </pre>	<p>6. East St at Ball Rd</p> <pre> 406/295 ↓ 521/339 ↓ 186/419 ← 931/1085 ↓ 168/347 980/1165 </pre>	<p>7. State College Blvd at Ball Rd</p> <pre> 252/151 ↓ 1042/472 ↓ 264/261 ↓ 87/204 ← 851/1010 ← 263/86 ↓ 219/242 863/1078 364/186 ↓ 131/341 490/982 110/171 </pre>	<p>D1. Driveway 1 on E. Santa Ana St</p> <pre> 184/235 ← 13/47 ↓ 292/216 5/16 ↓ 15/9 46/29 </pre>
<p>D2. Driveway 2 on E. South St</p> <pre> 6/4 ↓ 2/5 350/273 ↓ 18/9 5/16 ← 265/321 </pre>	<p>D3. Driveway 3 on E. South St</p> <pre> 32/17 ↓ 8/32 360/251 ↓ 96/50 24/95 ← 238/320 </pre>		



LEGEND:

- = Project Site
- = Study Intersection
- XX/YY = AM / PM Peak Hour Turning Movement Volumes
- X,XXX = ADT Volumes

**FIGURE 7
EXISTING PLUS PROJECT TRAFFIC VOLUMES**



TABLE 4
SUMMARY OF INTERSECTION OPERATION
EXISTING PLUS PROJECT CONDITIONS

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change in V/C or Delay	Sig Impact?	Without Project		With Project		Change in V/C or Delay	Sig Impact?
		ICU/ Delay	LOS	ICU/ Delay	LOS			ICU/ Delay	LOS	ICU/ Delay	LOS		
1	Anaheim Boulevard at E. Santa Ana Street	0.616	B	0.610	B	-0.006	No	0.659	B	0.653	B	-0.006	No
2	East Street at E. Santa Ana Street	0.517	A	0.540	A	0.023	No	0.532	A	0.541	A	0.009	No
3	Anaheim Boulevard at E. South Street	0.573	A	0.582	A	0.009	No	0.634	B	0.650	B	0.016	No
4	East Street at E. South Street	0.741	C	0.815	D	0.074	No	0.648	B	0.691	B	0.043	No
5	State College Boulevard at E. South Street	0.660	B	0.687	B	0.027	No	0.497	A	0.523	A	0.026	No
6	East Street at Ball Road	0.627	B	0.629	B	0.002	No	0.736	C	0.752	C	0.016	No
7	State College Boulevard at Ball Road	0.723	C	0.744	C	0.021	No	0.725	C	0.740	C	0.015	No
D1	E. Santa Ana Street Driveway	11.5	B	10.8	B	-0.7	No	11.0	B	10.4	B	-0.6	No
D2	E. South Street West Driveway	9.4	A	12.5	B	3.1	No	9.9	A	12.2	B	2.3	No
D3	E. South Street East Driveway	9.5	A	14.6	B	5.1	No	11.1	B	14.3	B	3.2	No

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Intersection operation is expressed in volume-to-capacity (v/c) ratio for signalized intersections, and average delay for unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 5
SUMMARY OF ROADWAY SEGMENT OPERATION
EXISTING PLUS PROJECT CONDITIONS

Roadway Segment	Lane Configuration	LOS E Capacity	Existing ADT	Project Trips	Existing + Project	V / C	LOS
E. Santa Ana Street							
Anaheim Boulevard to East Street	2 lanes undivided	12,500	5,806	-218	5,588	0.45	A
East Street to State College Boulevard	2 lanes undivided	12,500	6,983	-33	6,950	0.56	A
E. South Street							
Anaheim Boulevard to East Street	2 lanes undivided	12,500	6,531	366	6,897	0.55	A
East Street to State College Boulevard	2 lanes undivided	12,500	5,104	732	5,836	0.47	A
E. Ball Road							
East Street to State College Boulevard	6 lanes divided	56,300	37,602	1,210	38,812	0.69	B
East Street							
E. Santa Ana Street to E. South Street	4 lanes undivided ¹	25,000	14,264	612	14,876	0.60	A
E. South Street to E. Vermont Avenue	2 lanes divided ¹	22,000	13,823	1,210	15,033	0.68	B
State College Boulevard							
E. Vermont Avenue to E. Ball Road	6 lanes divided	56,300	23,913	402	24,315	0.43	A

V / C = Volume-to-Capacity Ratio

LOS = Level of Service

¹ The configuration varies along this segment. The configuration and capacity shown reflect the lowest capacity configuration.

NEAR-TERM FUTURE CONDITIONS

Near-term future traffic forecasts have been developed to evaluate Cumulative Conditions for the anticipated project opening year. Project completion is estimated to occur in Year 2019. Year 2019 Near-Term traffic forecast volumes were developed using the following approach.

Background Growth

Future year forecasts for the Year 2019 Near-Term condition were developed using the “build-up” process, starting with adding a background growth factor to existing traffic volumes at the study locations. An ambient growth rate of 1.0 percent per year was applied.

Cumulative Projects

In addition to ambient growth, cumulative project traffic volumes are added to existing traffic volumes. City staff indicated that one cumulative project was identified for the study area. The project is located on East Street, less than 1,000 feet directly east of the project site. The project would replace two existing businesses with 42 townhome dwelling units. Project-related trips for the cumulative project were obtained from the traffic study prepared for the project: *Traffic Impact Analysis, East and South Street, (LSA, March, 2017)*. Copies of the project traffic information for the cumulative project obtained from this report are provided in *Appendix C*.

2019 Near-Term without Project Conditions

The ambient growth and the project-related traffic volumes from the cumulative project were added to the existing peak hour volumes, to develop 2019 Near-Term Without Project traffic forecasts. The resulting traffic volumes are shown on Figure 8.

Peak Hour Intersection Operations

The results of the 2019 Near-Term Without Project intersection analysis are summarized on Table 6. Review of this table shows that, with the addition of ambient growth and cumulative project traffic, the study intersections would continue to operate at Level of Service D or better in both peak hours. Intersection analysis worksheets are provided in *Appendix B*.

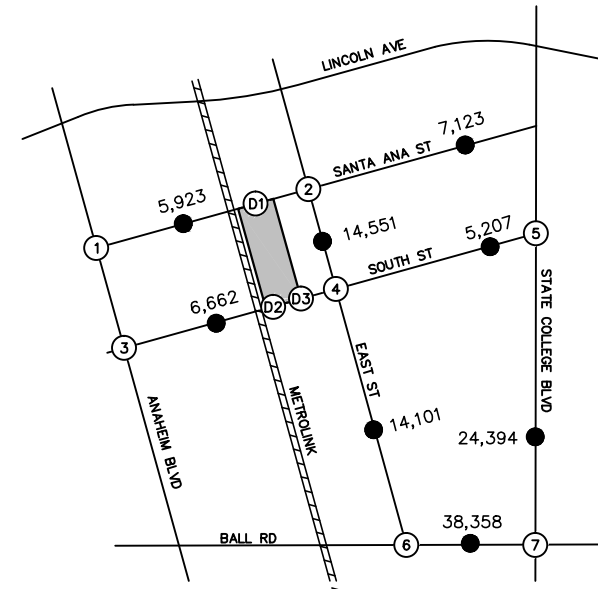
Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the study roadway segments for the 2019 Near-Term Without Project Conditions and the results of are summarized on Table 7. Review of this table indicates that each of the study roadway segments would continue to operate at Level of Service C or better under 2019 Near-Term conditions.



NOT TO SCALE

<p>1. Anaheim Blvd at Santa Ana St</p> <p>34/55 871/729 42/66</p> <p>40/55 182/225 66/50</p> <hr/> <p>57/47 208/174 89/43</p> <p>32/73 504/1080 35/49</p>	<p>2. East St at Santa Ana St</p> <p>37/45 716/452 61/94</p> <p>77/71 122/191 62/36</p> <hr/> <p>96/61 174/136 87/33</p> <p>33/51 344/656 31/39</p>	<p>3. Anaheim Blvd at South St</p> <p>20/26 992/725 36/61</p> <p>56/54 126/170 156/123</p> <hr/> <p>33/18 106/142 46/31</p> <p>14/49 479/1055 44/92</p>	<p>4. East St at South St</p> <p>64/45 763/396 46/60</p> <p>75/63 99/194 82/28</p> <hr/> <p>46/46 162/134 84/39</p> <p>34/67 267/635 34/60</p>
<p>5. State College Blvd at South St</p> <p>166/212 1346/834 15/19</p> <p>9/14 9/27 29/32</p> <hr/> <p>225/153 8/21 82/44</p> <p>72/131 831/1218 18/60</p>	<p>6. East St at Ball Rd</p> <p>414/301 452/308</p> <p>176/347 950/1107</p> <hr/> <p>171/354 1000/1188</p>	<p>7. State College Blvd at Ball Rd</p> <p>257/154 1050/474 256/261</p> <p>88/195 865/991 268/88</p> <hr/> <p>223/247 842/1084 331/167</p> <p>122/308 496/988 112/174</p>	<p>D1. Driveway 1 on E. Santa Ana St</p> <p>188/240 15/0</p> <hr/> <p>298/220 30/0</p> <p>15/26 8/14</p>
<p>D2. Driveway 2 on E. South St</p> <p>2/3 238/310</p> <hr/> <p>349/246</p>	<p>D3. Driveway 3 on E. South St</p> <p>1/28 0/15 21/1 238/310</p> <hr/> <p>38/2 349/246</p>		



LEGEND:

- = Project Site
- = Study Intersection
- XX/YY = AM / PM Peak Hour Turning Movement Volumes
- X,XXX = ADT Volumes

FIGURE 8
2019 NEAR-TERM WITHOUT PROJECT TRAFFIC VOLUMES

TABLE 6
SUMMARY OF INTERSECTION OPERATION
2019 NEAR-TERM WITHOUT PROJECT CONDITIONS

Int. #	Intersection	AM Peak Hour		PM Peak Hour	
		ICU/Delay	LOS	ICU/Delay	LOS
1	Anaheim Boulevard at E. Santa Ana Street	0.627	B	0.671	B
2	East Street at E. Santa Ana Street	0.526	A	0.540	A
3	Anaheim Boulevard at E. South Street	0.582	A	0.647	B
4	East Street at E. South Street	0.756	C	0.661	B
5	State College Boulevard at E. South Street	0.672	B	0.506	A
6	East Street at Ball Road	0.638	B	0.750	C
7	State College Boulevard at Ball Road	0.737	C	0.738	C
D1	E. Santa Ana Street Driveway	11.6	B	11.1	B
D2	E. South Street West Driveway	9.5	A	10.0	A
D3	E. South Street East Driveway	9.5	A	11.2	B

Note:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Intersection operation is expressed in volume-to-capacity (v/c) ratio for signalized intersections, and average delay for unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 7
SUMMARY OF ROADWAY SEGMENT OPERATION
2019 NEAR-TERM WITHOUT PROJECT CONDITIONS

Roadway Segment	Lane Configuration	LOS E Capacity	2019 Near-Term ADT	V / C	LOS
E. Santa Ana Street					
Anaheim Boulevard to East Street	2 lanes undivided	12,500	5,923	0.47	A
East Street to State College Boulevard	2 lanes undivided	12,500	7,123	0.57	A
E. South Street					
Anaheim Boulevard to East Street	2 lanes undivided	12,500	6,662	0.53	A
East Street to State College Boulevard	2 lanes undivided	12,500	5,207	0.42	A
E. Ball Road					
East Street to State College Boulevard	6 lanes divided	56,300	38,358	0.68	B
East Street					
E. Santa Ana Street to E. South Street	4 lanes undivided ¹	25,000	14,551	0.58	A
E. South Street to E. Vermont Avenue	2 lanes divided ¹	22,000	14,101	0.64	B
State College Boulevard					
E. Vermont Avenue to E. Ball Road	6 lanes divided	56,300	24,394	0.43	A

V / C = Volume-to-Capacity Ratio

LOS = Level of Service

¹ The configuration varies along this segment. The configuration and capacity shown reflect the lowest capacity configuration.

2019 Near-Term with Project Conditions

Project-related traffic volumes for the East South Street Residential Project were added to the 2019 Near-Term without Project traffic volumes to develop 2019 Near-Term with Project traffic forecast volumes. The resulting traffic volumes are shown on Figure 9.

Peak Hour Intersection Operations

Intersection Level of Service analysis was conducted for the morning and evening peak hours and the results are shown on Table 8. Review of this table indicates that all study intersections would continue to operate at an acceptable Level of Service (LOS D or better) in both peak hours with the addition of project traffic. The unsignalized project driveways will operate at LOS C or better during both peak hours. Intersection analysis worksheets are provided in *Appendix B*.

Daily Roadway Operating Conditions

Roadway Level of Service analysis was conducted for the study roadway segments and the results of are summarized on Table 9. Review of this table indicates that the study roadway segments would continue to operate at Level of Service C better with the addition of project traffic.

SITE ACCESS AND CIRCULATION

Access for the project will consist of one driveway on East Santa Ana Street, and two driveways on East South Street. All site entrances will be unsignalized.

The driveway on East Santa Ana Street (labeled D1) will be in the same location as the existing Freeman driveway. It will connect to an on-site loop road providing access to the single-family homes and to the townhomes on the north portion of the site.

The existing westerly driveway on East South Street (labeled D2) will be closed and the new project driveway will be located beyond (east of) the raised median to allow vehicles to turn left into and out of the site. This driveway will provide access to the apartments and to the townhomes on the south portion of the site. Cross access between the north and south portions of the site will be provided via one 24-foot two-way connecting drive aisle.

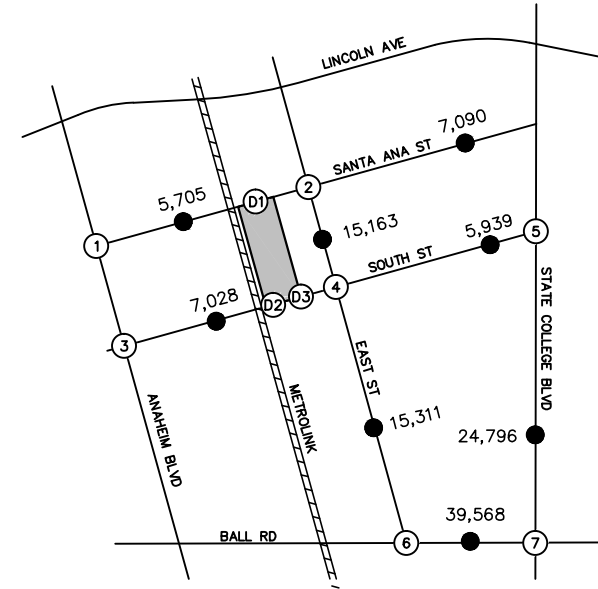
Each of the main project driveways would provide one inbound lane and two outbound lanes – one left-turn and one right-turn lane. The main drive aisles will be 36 to 42 feet wide, with on-street parking along one or both sides for visitor parking.

A separate, gated driveway on East South Street (labeled D3) will provide access to the parking structure for the apartments. The parking structure entrance will provide one lane in and one lane out. The gate will be located approximately 140 feet north of East South Street, with 12 visitor parking spaces located outside the gate. A second, internal connection to the parking structure will be provided from the on-site cul-de-sac.



NOT TO SCALE

<p>1. Anaheim Blvd at Santa Ana St</p>	<p>2. East St at Santa Ana St</p>	<p>3. Anaheim Blvd at South St</p>	<p>4. East St at South St</p>
<p>5. State College Blvd at South St</p>	<p>6. East St at Ball Rd</p>	<p>7. State College Blvd at Ball Rd</p>	<p>D1. Driveway 1 on E. Santa Ana St</p>
<p>D2. Driveway 2 on E. South St</p>	<p>D3. Driveway 3 on E. South St</p>		



LEGEND:

= Project Site

= Study Intersection

XX/YY = AM / PM Peak Hour Turning Movement Volumes

X,XXX = ADT Volumes

FIGURE 9
2019 NEAR-TERM WITH PROJECT TRAFFIC VOLUMES

TABLE 8
SUMMARY OF INTERSECTION OPERATION
2019 NEAR-TERM WITH PROJECT CONDITIONS

Int. #	Intersection	AM Peak Hour						PM Peak Hour					
		Without Project		With Project		Change in V/C or Delay	Sig Impact?	Without Project		With Project		Change in V/C or Delay	Sig Impact?
		ICU/ Delay	LOS	ICU/ Delay	LOS			ICU/ Delay	LOS	ICU/ Delay	LOS		
1	Anaheim Boulevard at E. Santa Ana Street	0.627	B	0.621	B	-0.006	No	0.671	B	0.666	B	-0.005	No
2	East Street at E. Santa Ana Street	0.526	A	0.549	A	0.023	No	0.540	A	0.549	A	0.009	No
3	Anaheim Boulevard at E. South Street	0.582	A	0.591	A	0.009	No	0.647	B	0.663	B	0.016	No
4	East Street at E. South Street	0.756	C	0.831	D	0.075	No	0.661	B	0.703	B	0.042	No
5	State College Boulevard at E. South Street	0.672	B	0.699	B	0.027	No	0.506	A	0.532	A	0.026	No
6	East Street at Ball Road	0.638	B	0.641	B	0.003	No	0.750	C	0.766	C	0.016	No
7	State College Boulevard at Ball Road	0.737	C	0.758	C	0.021	No	0.738	C	0.753	C	0.015	No
D1	E. Santa Ana Street Driveway	11.6	B	10.9	B	-0.7	No	11.1	B	10.4	B	-0.7	No
D2	E. South Street West Driveway	9.5	A	12.6	B	3.1	No	10.0	A	12.3	B	2.3	No
D3	E. South Street East Driveway	9.5	A	14.7	B	5.2	No	11.2	B	14.4	B	3.2	No

Notes:

- Bold values indicate intersections operating at an unacceptable Level of Service
- Intersection operation is expressed in volume-to-capacity (v/c) ratio for signalized intersections, and average delay for unsignalized intersections.
- Delay values for unsignalized intersections represent the average vehicle delay on the worst (highest delay) intersection approach.

TABLE 9
SUMMARY OF ROADWAY SEGMENT OPERATION
2019 NEAR-TERM WITH PROJECT CONDITIONS

Roadway Segment	Lane Configuration	LOS E Capacity	2019 Near-Term ADT	Project Trips	2019 Near-Term + Project	V / C	LOS
E. Santa Ana Street							
Anaheim Boulevard to East Street	2 lanes undivided	12,500	5,923	-218	5,705	0.46	A
East Street to State College Boulevard	2 lanes undivided	12,500	7,123	-33	7,090	0.57	A
E. South Street							
Anaheim Boulevard to East Street	2 lanes undivided	12,500	6,662	366	7,028	0.56	A
East Street to State College Boulevard	2 lanes undivided	12,500	5,207	732	5,939	0.48	A
E. Ball Road							
East Street to State College Boulevard	6 lanes divided	56,300	38,358	1,210	39,568	0.70	B
East Street							
E. Santa Ana Street to E. South Street	4 lanes undivided ¹	25,000	14,551	612	15,163	0.61	B
E. South Street to E. Vermont Avenue	2 lanes divided ¹	22,000	14,101	1,210	15,311	0.70	B
State College Boulevard							
E. Vermont Avenue to E. Ball Road	6 lanes divided	56,300	24,394	402	24,796	0.44	A
<p>V / C = Volume-to-Capacity Ratio</p> <p>LOS = Level of Service</p> <p>¹ The configuration varies along this segment. The configuration and capacity shown reflect the lowest capacity configuration.</p>							

Parking for the project will consist of a combination of enclosed garages and driveway parking for the townhomes and single-family units, a 670-space parking structure for the apartments, and 186 parallel parking spaces located on the streets throughout the site for visitors. The total parking supply for the site will be 1,358 parking spaces. The City's parking requirements for the project, per the City's Municipal Code, is 1,352 spaces. The project parking supply exceeds the City's parking code requirement for the project.

SUMMARY OF FINDINGS AND CONCLUSIONS

- The applicant proposes the development of 546 residential units on the site of the existing Freeman Corporation business, located at 901 East South Street in the City of Anaheim.
- The project site is a designated Residential Opportunity site in the City's Housing Element of the General Plan, with a land use designation of Low Medium and Medium residential
- Morning and evening peak hour operating conditions were evaluated at 7 study intersections and 8 roadway segments and for the following study scenarios:
 - Existing,
 - Existing Plus Project,
 - 2019 Near-Term without Project, and
 - 2019 Near-Term with Project.
- Under Existing Conditions, all of the study intersections are currently operating at Level of Service D or better, and all study roadway segments are currently operating at Level of Service C or better.
- Trip credits were applied to account for the existing trips generated by the Freeman business that would be eliminated as a result of the project.
- The existing traffic generated by the Freeman business includes 230 big rig truck trips per day, entering and exiting the site at the existing East Santa Ana Street driveway. This truck traffic will be eliminated as a result of the proposed residential project.
- When the existing Freeman site trips are taken into account, the residential project is estimated to generate approximately 2,345 net new daily trips, with 139 net new trips in the morning peak hour (48 fewer inbound and 187 additional outbound trips) and 229 net new trips in the evening peak hour (207 inbound and 22 outbound trips).
- Under Existing Plus Project Conditions, all study intersections would continue to operate at Level of Service D or better, and all study roadway segments would continue to operate at Level of Service C or better with the addition of project traffic.
- Ambient traffic growth at a rate of 1.0 percent per year and traffic from one cumulative project were added to Existing Conditions to establish 2019 Near-Term without Project Conditions (Cumulative Conditions).

- Under 2019 Near-Term without Project Conditions, all study intersections would continue to operate at Level of Service D or better, and all study roadway segments would continue to operate at Level of Service C or better.
- Under 2019 Near-Term with Project Conditions, all study intersections would continue to operate at Level of Service D or better, and all study roadway segments would continue to operate at Level of Service C or better with the addition of project traffic.
- No significant impacts would occur as a result of the project, and therefore, no traffic-related mitigation measures will be required of the project.
- Access for the project will consist of one driveway on East Santa Ana Street, and two driveways on East South Street. All site entrances will be unsignalized.
- Each site driveway would operate at LOS C or better with the completion of the project.
- Parking for the project will consist of a combination of enclosed garages and driveway parking for the townhomes and single-family units, a 670-space parking structure for the apartments, and 186 parallel parking spaces located on the streets throughout the site for visitors. The total parking supply for the site will be 1,358 parking spaces. This exceeds the City's parking code requirement for the project, per the City's Municipal Code.

APPENDIX A

TRAFFIC COUNT WORKSHEETS

APPENDIX A-1

**TRAFFIC COUNT WORKSHEETS
INTERSECTION TURNING MOVEMENTS**

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Thu, May 18, 17

LOCATION:
NORTH & SOUTH: Anaheim
EAST & WEST: Santa Ana

PROJECT #: SC1343
LOCATION #: 7
CONTROL: SIGNAL

NOTES:	AM		▲	
	PM		N	
	MD	◀ W		E ▶
	OTHER		S	
	OTHER		▼	

Add U-Turns to Left Turns

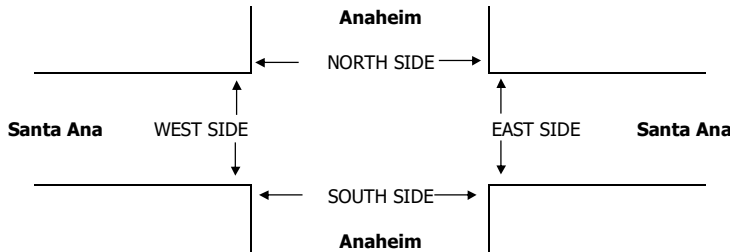
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	Anaheim			Anaheim			Santa Ana			Santa Ana			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	

U-TURNS				
NB	SB	EB	WB	TTL

AM	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	6	98	4	7	202	6	16	27	17	15	30	5	433
7:15 AM	10	108	11	12	238	10	18	51	19	13	41	11	542
7:30 AM	9	130	12	10	231	10	13	59	18	23	49	10	574
7:45 AM	8	157	6	10	209	9	10	44	28	16	50	12	559
8:00 AM	4	99	5	9	176	4	15	50	22	13	38	6	441
8:15 AM	6	134	4	7	162	4	5	44	16	9	27	7	425
8:30 AM	7	103	5	6	160	4	8	23	17	10	29	3	375
8:45 AM	3	105	6	3	123	3	6	32	10	4	22	10	327
VOLUMES	53	934	53	64	1,501	50	91	330	147	103	286	64	3,676
APPROACH %	5%	90%	5%	4%	93%	3%	16%	58%	26%	23%	63%	14%	
APP/DEPART	1,040	/	1,093	1,615	/	1,761	568	/	443	453	/	379	0
BEGIN PEAK HR	7:15 AM												
VOLUMES	31	494	34	41	854	33	56	204	87	65	178	39	2,116
APPROACH %	6%	88%	6%	4%	92%	4%	16%	59%	25%	23%	63%	14%	
PEAK HR FACTOR	0.817			0.892			0.964			0.860			0.922
APP/DEPART	559	/	591	928	/	1,014	347	/	277	282	/	234	0
4:00 PM	18	262	15	8	176	11	9	39	11	11	43	13	616
4:15 PM	23	218	16	9	176	8	11	49	11	18	44	17	600
4:30 PM	13	245	7	12	184	14	12	28	10	14	45	14	598
4:45 PM	8	246	19	8	165	13	15	49	8	14	41	15	601
5:00 PM	19	278	13	20	193	12	7	36	15	17	51	16	677
5:15 PM	18	272	15	14	170	15	19	53	8	8	51	11	654
5:30 PM	18	266	8	13	179	12	9	36	5	11	58	10	625
5:45 PM	17	243	12	18	173	15	11	46	14	13	51	17	630
VOLUMES	134	2,030	105	102	1,416	100	93	336	82	106	384	113	5,001
APPROACH %	6%	89%	5%	6%	88%	6%	18%	66%	16%	18%	64%	19%	
APP/DEPART	2,269	/	2,249	1,618	/	1,611	511	/	530	603	/	611	0
BEGIN PEAK HR	5:00 PM												
VOLUMES	72	1,059	48	65	715	54	46	171	42	49	211	54	2,586
APPROACH %	6%	90%	4%	8%	86%	6%	18%	66%	16%	16%	67%	17%	
PEAK HR FACTOR	0.951			0.927			0.809			0.935			0.955
APP/DEPART	1,179	/	1,170	834	/	810	259	/	273	314	/	333	0

0	1	0	0	1
3	0	0	0	3
3	0	0	0	3
1	2	0	0	3
1	0	0	0	1
2	0	0	0	2
0	1	0	0	1
0	0	0	0	0
10	4	0	0	14

1	1	0	0	2
0	1	0	0	1
1	0	0	0	1
1	0	0	0	1
0	6	0	0	6
1	3	0	0	4
1	1	0	0	2
2	1	0	0	3
7	13	0	0	20



AM	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0

PM	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

AM	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0

PM	PEDESTRIAN CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

AM	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0

PM	BICYCLE CROSSINGS				
	NS	SS	ES	WS	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

ITM Peak Hour Summary

Prepared by:

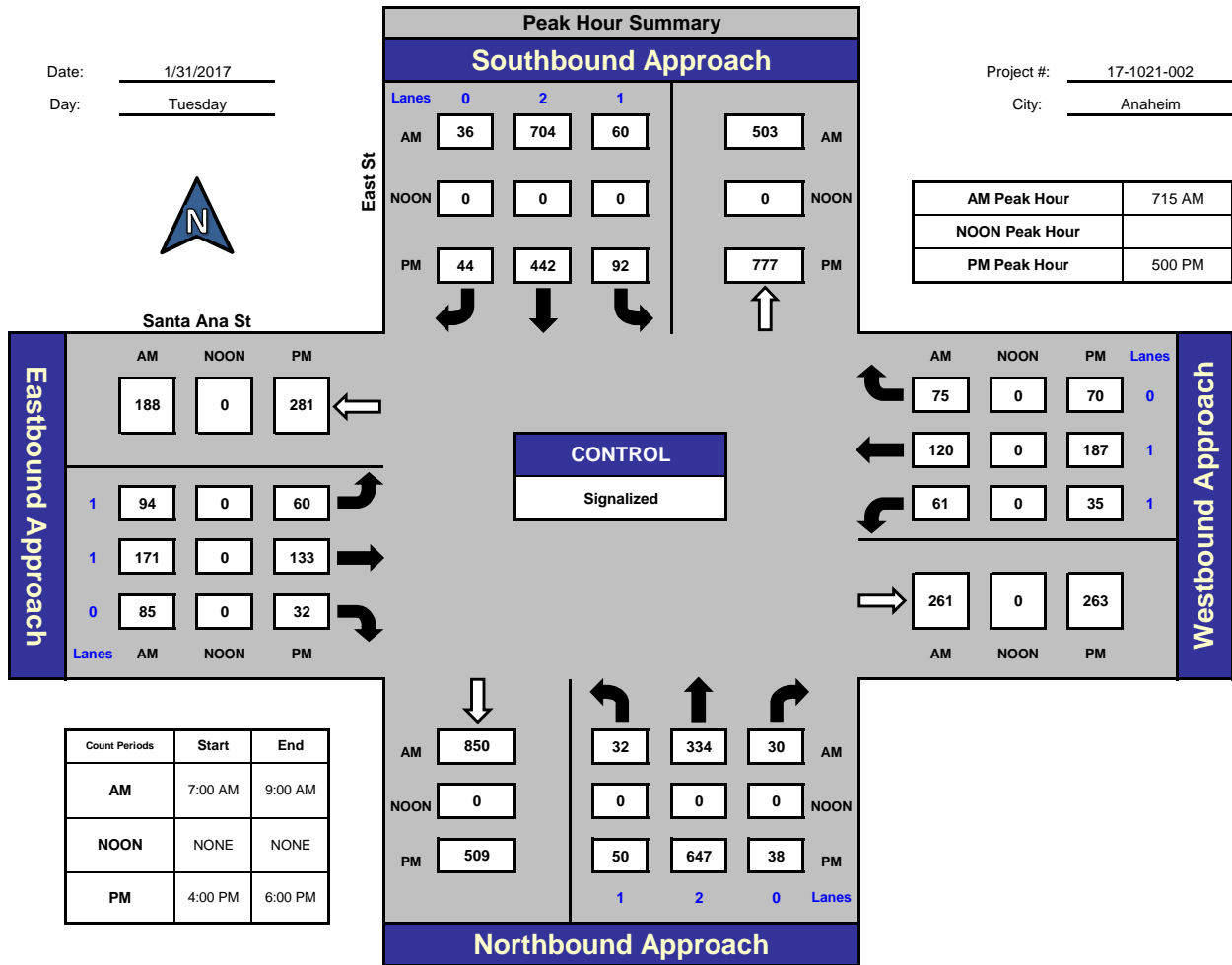


National Data & Surveying Services

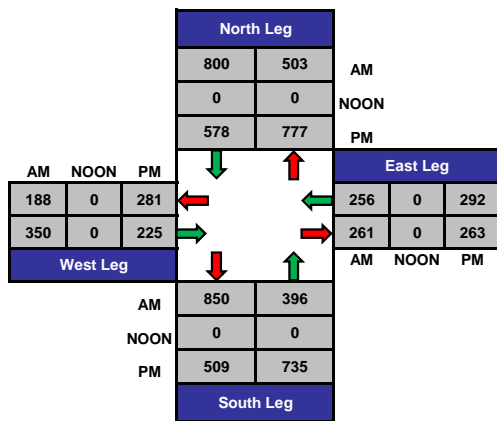
East St and Santa Ana St, Anaheim

Date: 1/31/2017
Day: Tuesday

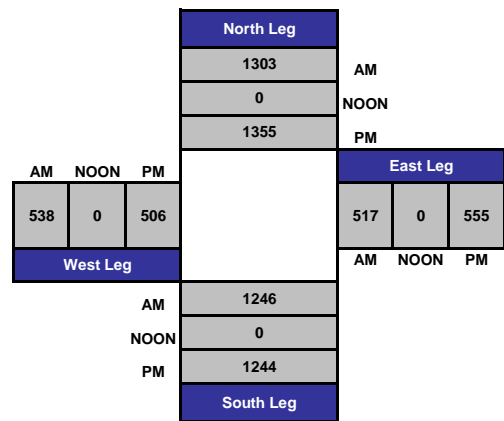
Project #: 17-1021-002
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

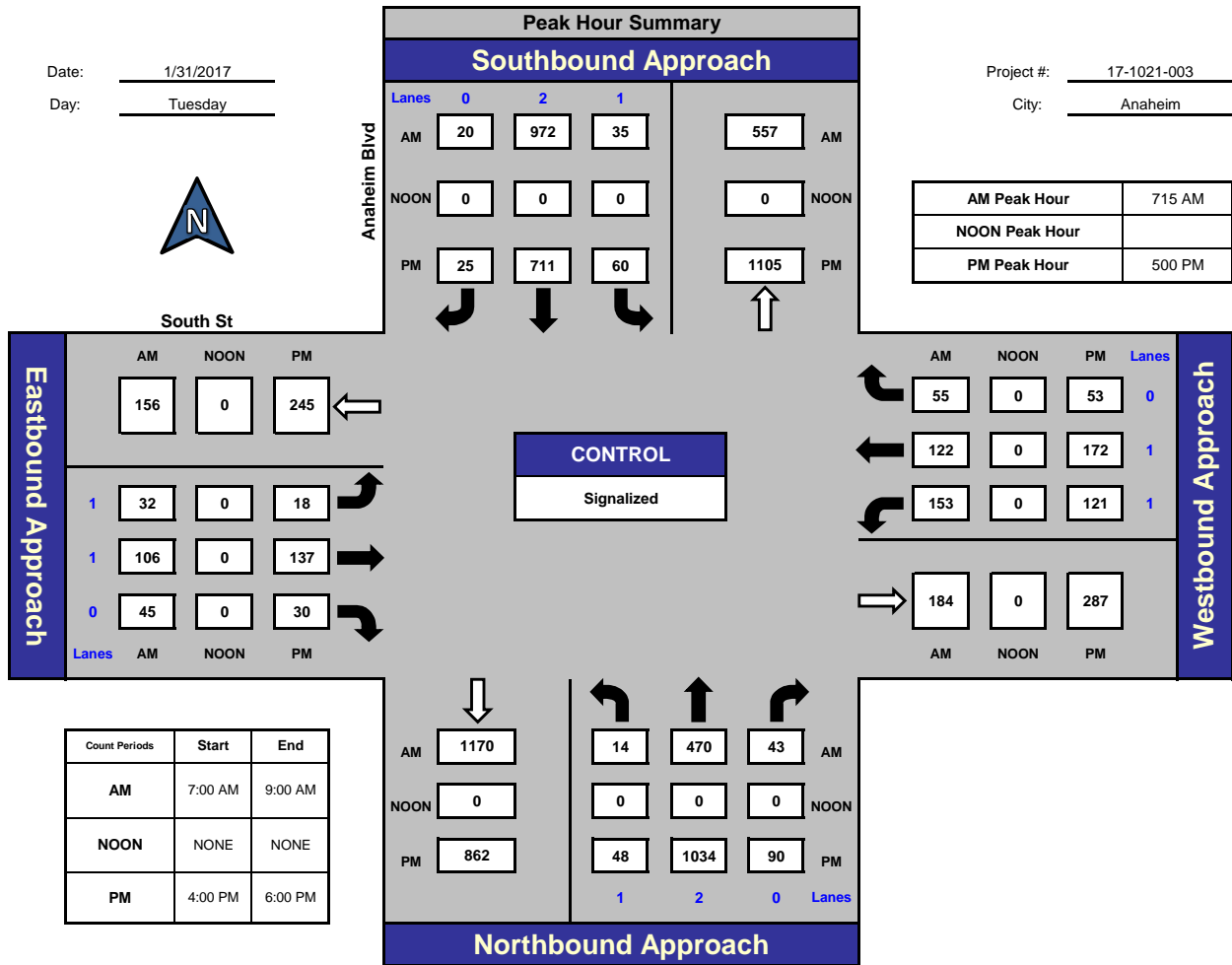


Prepared by:
National Data & Surveying Services

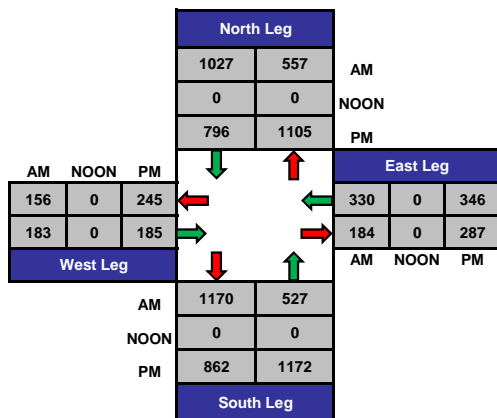
Anaheim Blvd and South St, Anaheim

Date: 1/31/2017
Day: Tuesday

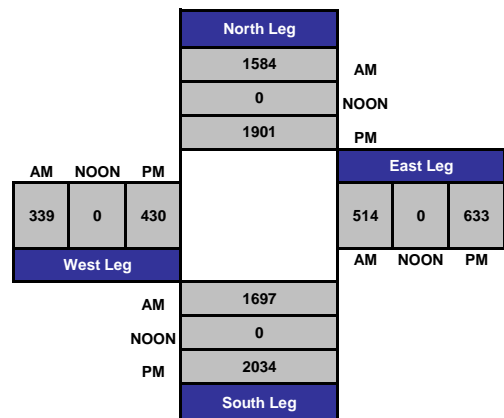
Project #: 17-1021-003
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

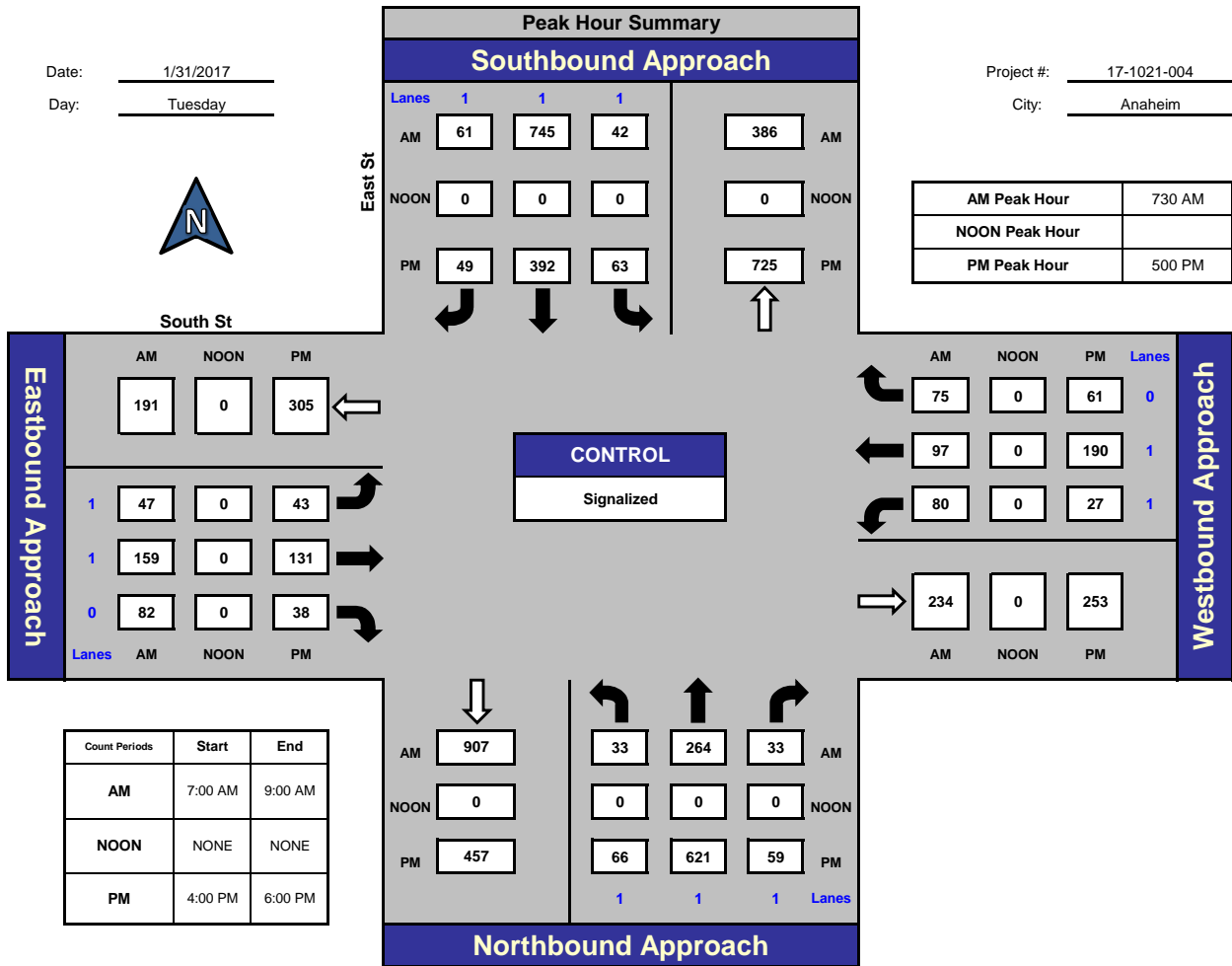
East St and South St, Anaheim

Date: 1/31/2017

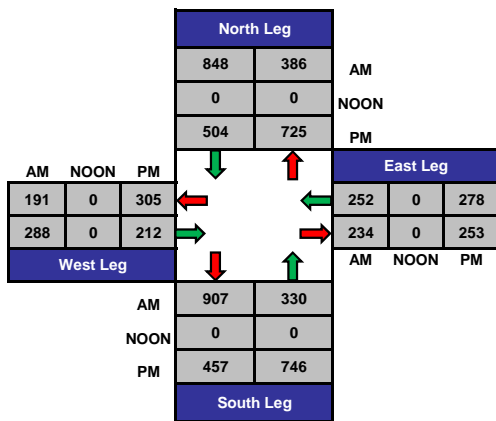
Day: Tuesday

Project #: 17-1021-004

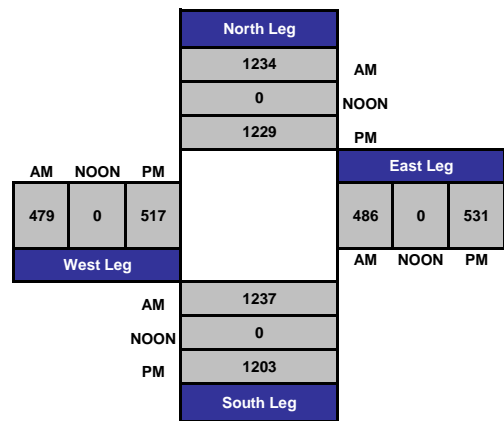
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

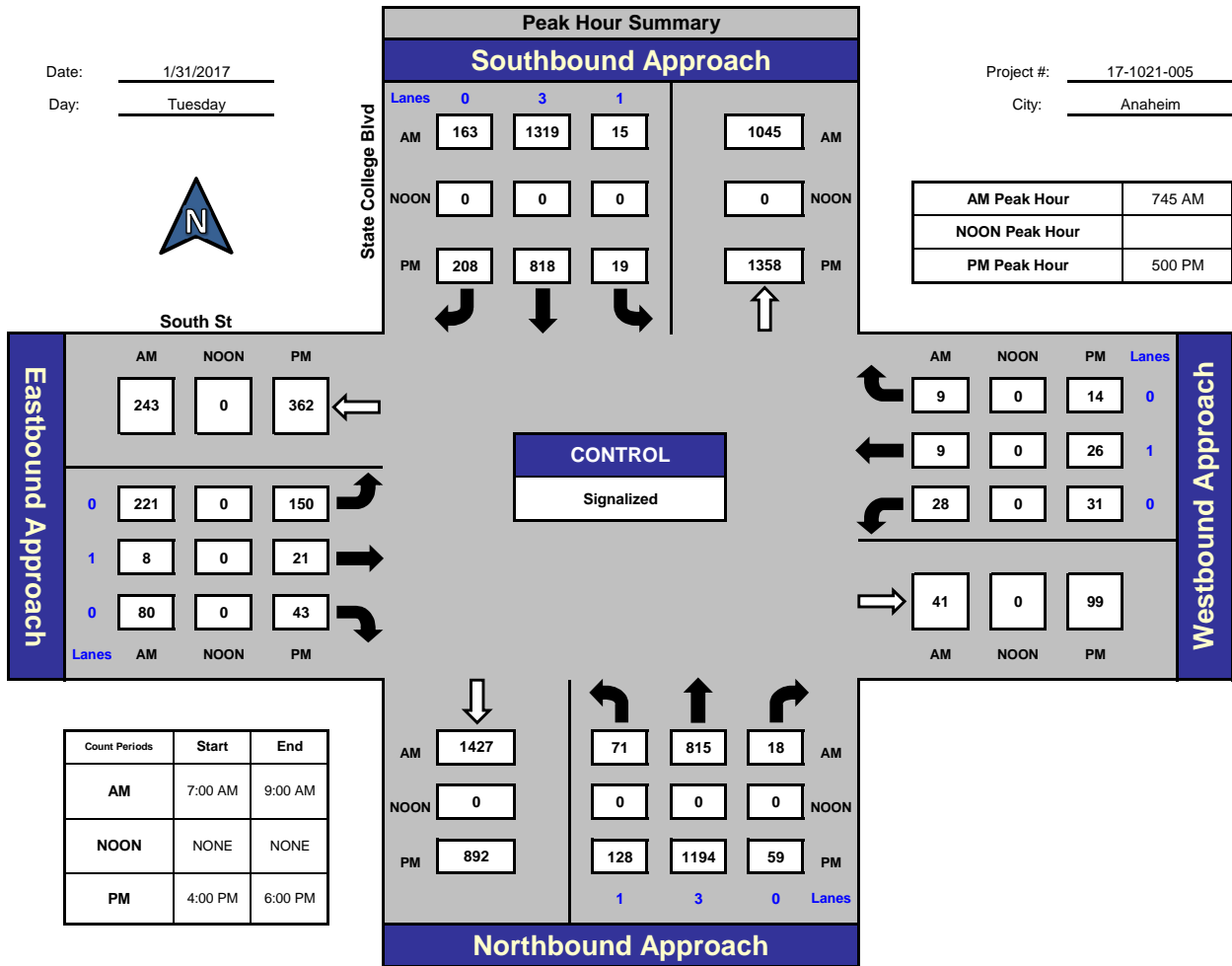


National Data & Surveying Services

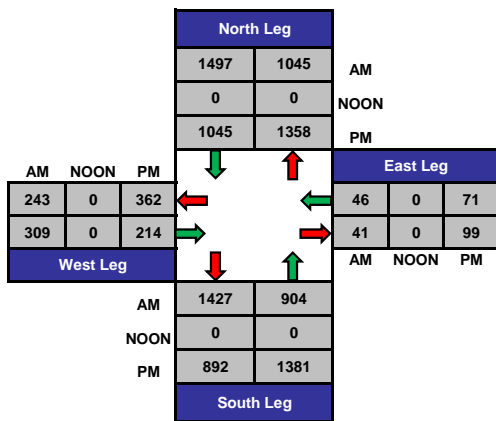
State College Blvd and South St., Anaheim

Date: 1/31/2017
Day: Tuesday

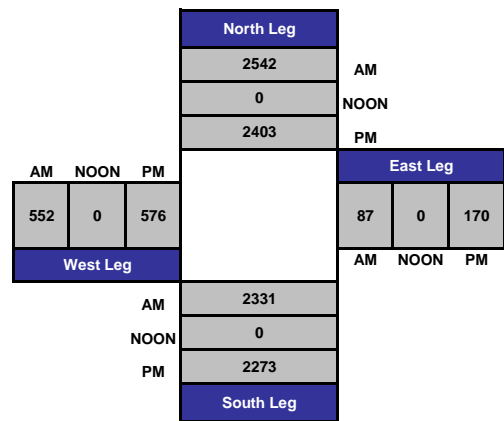
Project #: 17-1021-005
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

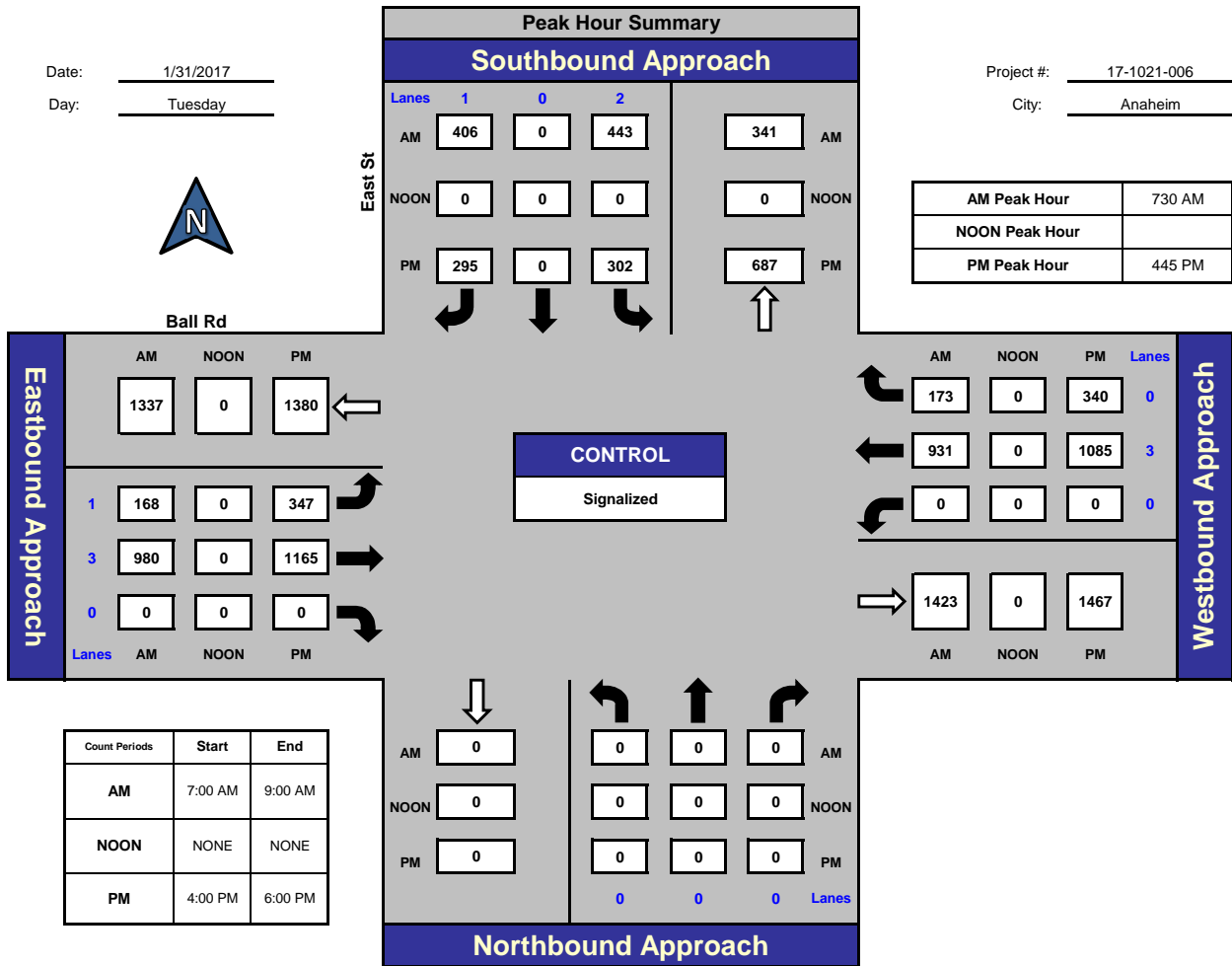
East St and Ball Rd , Anaheim

Date: 1/31/2017

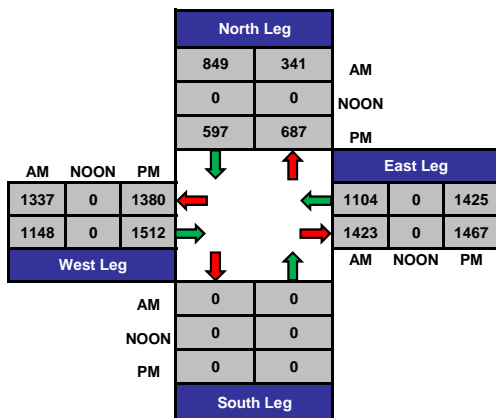
Day: Tuesday

Project #: 17-1021-006

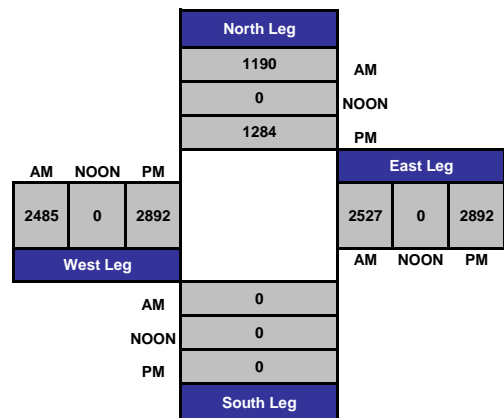
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

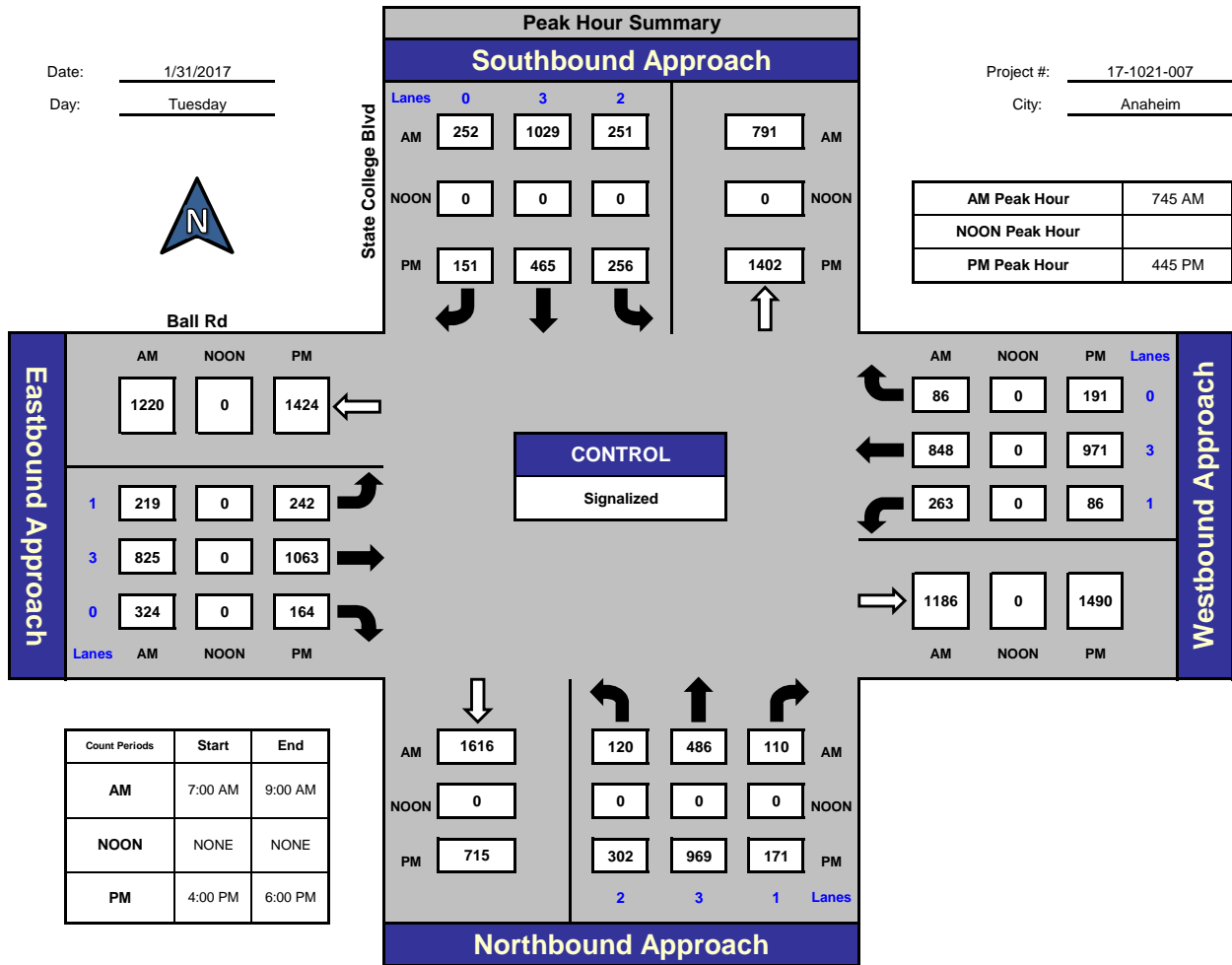


National Data & Surveying Services

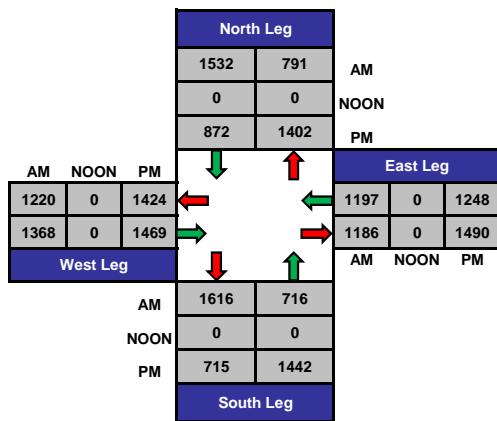
State College Blvd and Ball Rd , Anaheim

Date: 1/31/2017
Day: Tuesday

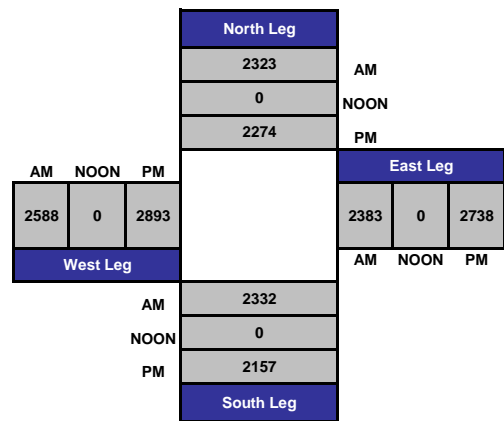
Project #: 17-1021-007
City: Anaheim



Total Ins & Outs



Total Volume Per Leg



APPENDIX A-2

TRAFFIC COUNT WORKSHEETS
DRIVEWAY COUNTS

VOLUME

Santa Ana Street and North Driveway

Day: Wednesday
Date: 2/1/2017

City: Anaheim, CA
Project #: 17-1023-001

DAILY TOTALS				IN 239	OUT 248					Total 487	
AM Period	IN	OUT		TOTAL	PM Period	IN	OUT		TOTAL		
00:00	0	0		0	12:00	4	4		8		
00:15	1	0		1	12:15	5	11		16		
00:30	0	1		1	12:30	8	4		12		
00:45	0	1	0	1	12:45	7	24	2	21	9	45
01:00	0	0		0	13:00	5	8		13		
01:15	0	0		0	13:15	4	2		6		
01:30	0	0		0	13:30	6	4		10		
01:45	0	0		0	13:45	2	17	8	22	10	39
02:00	0	0		0	14:00	4	4		8		
02:15	0	0		0	14:15	1	5		6		
02:30	0	0		0	14:30	11	6		17		
02:45	0	0		0	14:45	5	21	4	19	9	40
03:00	0	0		0	15:00	2	7		9		
03:15	0	0		0	15:15	1	0		1		
03:30	0	1		1	15:30	3	5		8		
03:45	0	1		1	15:45	1	7	3	15	4	22
04:00	0	0		0	16:00	0	5		5		
04:15	1	0		1	16:15	5	7		12		
04:30	1	0		1	16:30	0	32		32		
04:45	0	2	0	2	16:45	0	5	3	47	3	52
05:00	1	2		3	17:00	0	4		4		
05:15	4	1		5	17:15	0	0		0		
05:30	1	0		1	17:30	0	1		1		
05:45	2	8	0	2	17:45	0	1		6	1	6
06:00	0	3		3	18:00	0	1		1		
06:15	3	1		4	18:15	1	0		1		
06:30	5	1		6	18:30	0	5		5		
06:45	7	15	4	11	18:45	0	1	0	6	0	7
07:00	5	0		5	19:00	1	0		1		
07:15	7	5		12	19:15	1	0		1		
07:30	20	4		24	19:30	0	1		1		
07:45	11	43	5	16	19:45	0	2	0	1	0	3
08:00	3	1		4	20:00	0	0		0		
08:15	4	3		7	20:15	1	2		3		
08:30	6	2		8	20:30	0	0		0		
08:45	5	18	2	7	20:45	0	1	0	2	0	3
09:00	8	3		11	21:00	0	0		0		
09:15	4	7		11	21:15	0	0		0		
09:30	6	4		10	21:30	0	0		0		
09:45	9	27	4	13	21:45	0	0		0		
10:00	6	9		15	22:00	1	0		1		
10:15	9	8		17	22:15	0	1		1		
10:30	2	3		5	22:30	1	0		1		
10:45	5	22	5	10	22:45	1	3	1	2	2	5
11:00	2	5		7	23:00	0	1		1		
11:15	5	9		14	23:15	0	0		0		
11:30	3	5		8	23:30	0	0		0		
11:45	12	22	8	20	23:45	0	0		1	0	1
TOTALS	158	106		264	TOTALS	81	142		223		
SPLIT %	59.8%	40.2%		54.2%	SPLIT %	36.3%	63.7%		45.8%		

DAILY TOTALS				IN 239	OUT 248					Total 487
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AM Peak Hour	07:00	11:30		07:00	PM Peak Hour	12:15	15:45		15:45		
AM Pk Volume	43	28		57	PM Pk Volume	25	47		53		
PK Hr Factor	0.538	0.636		0.594	PK Hr Factor	0.781	0.367		0.414		
7 - 9 Volume	61	22	0	0	83	4 - 6 Volume	5	53	0	0	58
7 - 9 Peak Hour	07:00	07:15		07:00	4 - 6 Peak Hour	16:00	16:00		16:00		
7 - 9 Pk Volume	43	15	0	0	57	5	47	0	0	52	
PK Hr Factor	0.538	0.750	0.000	0.000	0.594	PK Hr Factor	0.250	0.367	0.000	0.000	0.406

VOLUME

Santa Ana Street and North Driveway

Day: Wednesday
Date: 2/1/2017

City: Anaheim, CA
Project #: 17-1023-001

DAILY TOTALS				IN	OUT					Total	
				113	117					230	
AM Period	IN	OUT		TOTAL	PM Period	IN	OUT		TOTAL		
00:00	0	0		0	12:00	2	3		5		
00:15	1	0		1	12:15	0	4		4		
00:30	0	1		1	12:30	2	2		4		
00:45	0	1	0	1	12:45	7	11	1	10	8	21
01:00	0	0		0	13:00	4	7		11		
01:15	0	0		0	13:15	3	1		4		
01:30	0	0		0	13:30	5	3		8		
01:45	0	0		0	13:45	2	14	7	18	9	32
02:00	0	0		0	14:00	3	1		4		
02:15	0	0		0	14:15	1	3		4		
02:30	0	0		0	14:30	6	1		7		
02:45	0	0		0	14:45	1	11	0	5	1	16
03:00	0	0		0	15:00	1	2		3		
03:15	0	0		0	15:15	1	0		1		
03:30	0	1		1	15:30	3	2		5		
03:45	0	0	1	1	15:45	0	5	1	5	1	10
04:00	0	0		0	16:00	0	1		1		
04:15	0	0		0	16:15	2	1		3		
04:30	0	0		0	16:30	0	1		1		
04:45	0	0		0	16:45	0	2	0	3	0	5
05:00	1	2		3	17:00	0	0		0		
05:15	0	1		1	17:15	0	0		0		
05:30	0	0		0	17:30	0	0		0		
05:45	0	1	0	0	17:45	0	0		0	0	4
06:00	0	3		3	18:00	0	0		0		
06:15	1	1		2	18:15	1	0		1		
06:30	2	1		3	18:30	0	0		0		
06:45	2	5	4	6	18:45	0	1	0	0	0	1
07:00	0	0		0	19:00	1	0		1		
07:15	0	2		2	19:15	1	0		1		
07:30	2	3		5	19:30	0	0		0		
07:45	1	3	4	5	19:45	0	2	0	0	0	2
08:00	1	0		1	20:00	0	0		0		
08:15	3	3		6	20:15	1	2		3		
08:30	3	2		5	20:30	0	0		0		
08:45	1	8	2	3	20:45	0	1	0	2	0	3
09:00	6	2		8	21:00	0	0		0		
09:15	2	5		7	21:15	0	0		0		
09:30	4	4		8	21:30	0	0		0		
09:45	8	20	3	11	21:45	0	0		0	0	34
10:00	3	7		10	22:00	1	0		1		
10:15	4	3		7	22:15	0	1		1		
10:30	1	1		2	22:30	1	0		1		
10:45	4	12	3	7	22:45	1	3	1	2	2	5
11:00	1	2		3	23:00	0	1		1		
11:15	2	7		9	23:15	0	0		0		
11:30	2	0		2	23:30	0	0		0		
11:45	8	13	4	12	23:45	0	0		0	0	1
TOTALS	63	71		134	TOTALS	50	46		96		
SPLIT %	47.0%	53.0%		58.3%	SPLIT %	52.1%	47.9%		41.7%		

DAILY TOTALS				IN	OUT					Total
				113	117					230

AM Peak Hour	09:00	09:15		09:15	PM Peak Hour	12:45	13:00		13:00		
AM Pk Volume	20	19		36	PM Pk Volume	19	18		32		
PK Hr Factor	0.625	0.679		0.818	PK Hr Factor	0.679	0.643		0.727		
7 - 9 Volume	11	16	0	0	27	4 - 6 Volume	2	3	0	0	5
7 - 9 Peak Hour	07:45	07:30		07:30	4 - 6 Peak Hour	16:00	16:00		16:00		
7 - 9 Pk Volume	8	10	0	0	17	4 - 6 Pk Volume	2	3	0	0	5
PK Hr Factor	0.667	0.625	0.000	0.000	0.708	PK Hr Factor	0.250	0.750	0.000	0.000	0.417

VOLUME

East South Street and East Driveway

Day: Wednesday
Date: 2/1/2017

City: Anaheim, CA
Project #: 17-1023-002

DAILY TOTALS					IN	OUT						Total
					189	138						327
AM Period	IN	OUT			TOTAL	PM Period	IN	OUT			TOTAL	
00:00	0	1			1	12:00	1	6			7	
00:15	0	0			0	12:15	6	10			16	
00:30	0	1			1	12:30	9	4			13	
00:45	0	0	2		0 2	12:45	12	28	3	23	15 51	
01:00	0	0			0	13:00	3	1			4	
01:15	0	0			0	13:15	3	3			6	
01:30	0	0			0	13:30	3	0			3	
01:45	0	0			0	13:45	2	11	2	6	4 17	
02:00	0	0			0	14:00	2	2			4	
02:15	0	0			0	14:15	3	0			3	
02:30	0	0			0	14:30	1	1			2	
02:45	0	0			0	14:45	1	7	3	6	4 13	
03:00	0	0			0	15:00	0	3			3	
03:15	0	0			0	15:15	0	2			2	
03:30	0	0			0	15:30	3	3			6	
03:45	0	0			0	15:45	1	4	1	9	2 13	
04:00	0	0			0	16:00	0	3			3	
04:15	0	0			0	16:15	0	2			2	
04:30	1	0			1	16:30	1	23			24	
04:45	0	1	0		0 1	16:45	2	3	8	36	10 39	
05:00	1	0			1	17:00	0	9			9	
05:15	1	0			1	17:15	0	3			3	
05:30	0	0			0	17:30	0	5			5	
05:45	0	2	0		0 2	17:45	2	2	5	22	7 24	
06:00	1	0			1	18:00	0	4			4	
06:15	2	0			2	18:15	2	2			4	
06:30	4	0			4	18:30	0	2			2	
06:45	4	11	0		4 11	18:45	0	2	0	8	0 10	
07:00	5	1			6	19:00	1	0			1	
07:15	6	0			6	19:15	0	0			0	
07:30	9	0			9	19:30	0	1			1	
07:45	17	37	0	1	17 38	19:45	0	1	0	1	0 2	
08:00	21	0			21	20:00	0	0			0	
08:15	12	1			13	20:15	0	1			1	
08:30	3	1			4	20:30	2	0			2	
08:45	6	42	1	3	7 45	20:45	0	2	0	1	0 3	
09:00	8	1			9	21:00	0	0			0	
09:15	3	2			5	21:15	0	0			0	
09:30	0	0			0	21:30	0	0			0	
09:45	1	12	1	4	2 16	21:45	0	1	1		1 1	
10:00	3	1			4	22:00	0	0			0	
10:15	3	2			5	22:15	0	0			0	
10:30	2	1			3	22:30	0	0			0	
10:45	4	12	1	5	5 17	22:45	2	2	0		2 2	
11:00	2	2			4	23:00	1	0			1	
11:15	1	1			2	23:15	0	0			0	
11:30	3	3			6	23:30	0	0			0	
11:45	3	9	4	10	7 19	23:45	0	1	0		0 1	
TOTALS	2	126	4	25	151	TOTALS	63	113			176	
SPLIT %	83.4%		16.6%		46.2%	SPLIT %	35.8%		64.2%		53.8%	

DAILY TOTALS					IN	OUT						Total
					189	138						327

AM Peak Hour	07:30	11:45			07:30	PM Peak Hour	12:15	16:30			12:00
AM Pk Volume	59	24			60	PM Pk Volume	30	43			51
PK Hr Factor	0.702	0.600			0.714	PK Hr Factor	0.625	0.467			0.797
7 - 9 Volume	79	4	0	0	83	4 - 6 Volume	5	58	0	0	63
7 - 9 Peak Hour	07:30	08:00			07:30	4 - 6 Peak Hour	16:00	16:30			16:30
7 - 9 Pk Volume	59	3	0	0	60	PK Hr Factor	0.375	0.467	0.000	0.000	0.479
PK Hr Factor	0.702	0.750	0.000	0.000	0.714						

VOLUME

East South Street and West Driveway

Day: Wednesday
Date: 2/1/2017

City: Anaheim, CA
Project #: 17-1023-003

DAILY TOTALS				IN	OUT					Total
				3	50					53
AM Period	IN	OUT	TOTAL	PM Period	IN	OUT	TOTAL			
00:00	0	2	2	12:00	0	2	2			
00:15	0	2	2	12:15	0	3	3			
00:30	0	0	0	12:30	0	1	1			
00:45	0	0 4	0 4	12:45	0	1 7	1 7			
01:00	0	0	0	13:00	0	0	0			
01:15	0	0	0	13:15	0	0	0			
01:30	0	0	0	13:30	0	0	0			
01:45	0	0	0	13:45	0	0	0			
02:00	0	0	0	14:00	0	0	0			
02:15	0	0	0	14:15	0	1	1			
02:30	0	0	0	14:30	0	0	0			
02:45	0	0	0	14:45	0	0 1	0 1			
03:00	0	0	0	15:00	0	0	0			
03:15	2	0	2	15:15	0	0	0			
03:30	0	0	0	15:30	0	0	0			
03:45	0 2	0	0 2	15:45	0	3 3	3 3			
04:00	0	2	2	16:00	0	1	1			
04:15	0	0	0	16:15	0	0	0			
04:30	0	0	0	16:30	0	8	8			
04:45	0	0 2	0 2	16:45	0	4 13	4 13			
05:00	0	0	0	17:00	0	1	1			
05:15	0	0	0	17:15	0	0	0			
05:30	0	0	0	17:30	0	1	1			
05:45	0	0	0	17:45	0	1 3	1 3			
06:00	0	0	0	18:00	0	0	0			
06:15	0	0	0	18:15	0	1	1			
06:30	0	0	0	18:30	0	0	0			
06:45	0	0	0	18:45	0	0 1	0 1			
07:00	0	0	0	19:00	0	2	2			
07:15	0	0	0	19:15	0	0	0			
07:30	0	1	1	19:30	0	0	0			
07:45	0	0 1	0 1	19:45	0	0 2	0 2			
08:00	0	1	1	20:00	0	0	0			
08:15	0	1	1	20:15	0	1	1			
08:30	0	1	1	20:30	0	1	1			
08:45	0	0 3	0 3	20:45	0	0 2	0 2			
09:00	0	0	0	21:00	0	0	0			
09:15	0	0	0	21:15	0	0	0			
09:30	0	0	0	21:30	0	0	0			
09:45	0	1 1	1 1	21:45	0	0	0			
10:00	0	0	0	22:00	0	0	0			
10:15	0	0	0	22:15	0	1	1			
10:30	0	0	0	22:30	0	1	1			
10:45	0	2 2	2 2	22:45	0	0 2	0 2			
11:00	1	1	2	23:00	0	0	0			
11:15	0	1	1	23:15	0	0	0			
11:30	0	0	0	23:30	0	0	0			
11:45	0 1	1 3	1 4	23:45	0	0	0			
TOTALS	3	16	19	TOTALS	34		34			
SPLIT %	15.8%	84.2%	35.8%	SPLIT %	100.0%		64.2%			

DAILY TOTALS				IN	OUT					Total
				3	50					53

AM Peak Hour	02:30	11:45		PM Peak Hour	16:00			
AM Pk Volume	2	7		PM Pk Volume	13			
PK Hr Factor	0.250	0.583	0.583	PK Hr Factor	0.406	0.406		
7 - 9 Volume	0	4	0 0	4 - 6 Volume	0	16	0 0	16
7 - 9 Peak Hour		07:30		4 - 6 Peak Hour	16:00			16:00
7 - 9 Pk Volume	0	3	0 0	Volume	13	0 0	0 0	13
PK Hr Factor	0.000	0.750	0.000 0.000	PK Hr Factor	0.000	0.406	0.000 0.000	0.406

APPENDIX A-3

TRAFFIC COUNT WORKSHEETS
24-HOUR ADT COUNTS

VOLUME

Santa Ana St Bet. Anaheim Blvd & East St

Day: Tuesday
Date: 1/31/2017

City: Anaheim
Project #: CA17_1022_001

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	3,066	2,740	5,806

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			4	2	6	12:00			38	50	88			
00:15			2	5	7	12:15			31	32	63			
00:30			4	3	7	12:30			40	33	73			
00:45			4	14	5	15	12:45		27	136	31	146	58	282
01:00			5	2	7	13:00			33	42	75			
01:15			5	1	6	13:15			40	36	76			
01:30			3	2	5	13:30			47	40	87			
01:45			2	15	2	7	13:45		47	167	42	160	89	327
02:00			2	3	5	14:00			72	48	120			
02:15			1	2	3	14:15			64	51	115			
02:30			2	3	5	14:30			63	58	121			
02:45			1	6	1	9	14:45		44	243	47	204	91	447
03:00			2	1	3	15:00			65	64	129			
03:15			8	2	10	15:15			48	46	94			
03:30			3	1	4	15:30			47	51	98			
03:45			2	15	1	5	15:45		62	222	57	218	119	440
04:00			1	4	5	16:00			52	52	104			
04:15			2	5	7	16:15			47	54	101			
04:30			7	3	10	16:30			51	52	103			
04:45			17	27	3	15	16:45		54	204	49	207	103	411
05:00			7	11	18	17:00			61	68	129			
05:15			12	7	19	17:15			45	49	94			
05:30			16	8	24	17:30			57	60	117			
05:45			22	57	12	38	17:45		53	216	58	235	111	451
06:00			19	23	42	18:00			53	64	117			
06:15			29	20	49	18:15			53	45	98			
06:30			52	26	78	18:30			60	57	117			
06:45			57	157	36	105	18:45		31	197	36	202	67	399
07:00			54	59	113	19:00			37	42	79			
07:15			68	60	128	19:15			30	36	66			
07:30			70	43	113	19:30			38	42	80			
07:45			77	269	40	202	19:45		35	140	37	157	72	297
08:00			77	41	118	20:00			30	16	46			
08:15			93	53	146	20:15			39	37	76			
08:30			71	62	133	20:30			33	29	62			
08:45			40	281	41	197	20:45		36	138	23	105	59	243
09:00			35	32	67	21:00			24	19	43			
09:15			31	23	54	21:15			23	23	46			
09:30			30	35	65	21:30			20	22	42			
09:45			35	131	27	117	21:45		22	89	18	82	40	171
10:00			30	34	64	22:00			19	14	33			
10:15			25	28	53	22:15			13	13	26			
10:30			39	29	68	22:30			8	12	20			
10:45			34	128	23	114	22:45		12	52	7	46	19	98
11:00			24	36	60	23:00			12	6	18			
11:15			33	29	62	23:15			8	8	16			
11:30			34	34	68	23:30			6	8	14			
11:45			42	133	28	127	23:45		3	29	5	27	8	56
TOTALS			1233	951	2184	TOTALS			1833	1789	3622			
SPLIT %			56.5%	43.5%	37.6%	SPLIT %			50.6%	49.4%	62.4%			

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	3,066	2,740	5,806

AM Peak Hour			07:45	07:00	07:45	PM Peak Hour			13:45	17:00	14:15
AM Pk Volume			318	202	514	PM Pk Volume			246	235	456
Pk Hr Factor			0.855	0.842	0.880	Pk Hr Factor			0.854	0.864	0.884
7 - 9 Volume	0	0	550	399	949	4 - 6 Volume	0	0	420	442	862
7 - 9 Peak Hour			07:45	07:00	07:45	4 - 6 Peak Hour			16:45	17:00	17:00
7 - 9 Pk Volume	0	0	318	202	514	4 - 6 Pk Volume	0	0	217	235	451
Pk Hr Factor	0.000	0.000	0.855	0.842	0.880	Pk Hr Factor	0.000	0.000	0.889	0.864	0.874

VOLUME

Santa Ana St Bet. East St & State College Blvd

Day: Wednesday
Date: 3/1/2017

City: Anaheim
Project #: CA17_1022_002

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	3,299	3,684	6,983

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			10	2	12	12:00			36	47	83
00:15			2	1	3	12:15			47	68	115
00:30			3	4	7	12:30			49	41	90
00:45			3	18	4	12:45			56	188	244
01:00			2	2	4	13:00			50	88	138
01:15			3	3	6	13:15			45	82	127
01:30			1	1	2	13:30			51	60	111
01:45			1	7	2	13:45			49	195	244
02:00			1	0	1	14:00			57	75	132
02:15			3	3	6	14:15			74	66	140
02:30			1	3	4	14:30			53	72	125
02:45			3	8	3	14:45			64	248	312
03:00			1	6	7	15:00			59	57	116
03:15			6	9	15	15:15			60	72	132
03:30			7	7	14	15:30			66	83	149
03:45			3	17	13	15:45			50	235	285
04:00			4	16	20	16:00			63	68	131
04:15			8	15	23	16:15			52	97	149
04:30			13	19	32	16:30			69	79	148
04:45			12	37	24	16:45			56	240	296
05:00			11	28	39	17:00			55	65	120
05:15			9	33	42	17:15			56	62	118
05:30			27	44	71	17:30			56	68	124
05:45			14	61	65	17:45			51	218	269
06:00			24	90	114	18:00			64	51	115
06:15			40	97	137	18:15			68	59	127
06:30			41	44	85	18:30			52	45	97
06:45			60	165	37	18:45			60	244	304
07:00			53	45	98	19:00			44	35	79
07:15			65	51	116	19:15			39	40	79
07:30			68	55	123	19:30			44	36	80
07:45			63	249	52	19:45			41	168	209
08:00			71	43	114	20:00			50	21	71
08:15			55	50	105	20:15			30	19	49
08:30			36	61	97	20:30			33	30	63
08:45			43	205	49	20:45			30	143	173
09:00			26	27	53	21:00			28	19	47
09:15			31	42	73	21:15			23	10	33
09:30			33	36	69	21:30			29	13	42
09:45			31	121	47	21:45			21	101	122
10:00			39	41	80	22:00			21	9	30
10:15			28	51	79	22:15			14	8	22
10:30			36	44	80	22:30			19	7	26
10:45			29	132	35	22:45			9	63	72
11:00			42	46	88	23:00			19	3	22
11:15			46	48	94	23:15			14	0	14
11:30			50	48	98	23:30			4	5	9
11:45			53	191	46	23:45			8	45	53
TOTALS			1211	1488	2699	TOTALS			2088	2196	4284
SPLIT %			44.9%	55.1%	38.7%	SPLIT %			48.7%	51.3%	61.3%

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	3,299	3,684	6,983

AM Peak Hour			07:15	05:30	07:15	PM Peak Hour			14:15	15:30	16:00
AM Pk Volume			267	296	468	PM Pk Volume			250	319	557
PK Hr Factor			0.940	0.763	0.951	PK Hr Factor			0.845	0.822	0.935
7 - 9 Volume	0	0	454	406	860	4 - 6 Volume	0	0	458	565	1023
7 - 9 Peak Hour			07:15	07:45	07:15	4 - 6 Peak Hour			16:00	16:00	16:00
7 - 9 Pk Volume	0	0	267	206	468	4 - 6 Pk Volume	0	0	240	317	557
PK Hr Factor	0.000	0.000	0.940	0.844	0.951	PK Hr Factor	0.000	0.000	0.870	0.817	0.935

VOLUME

South St Bet. Anaheim Blvd & East St

Day: Tuesday
Date: 1/31/2017

City: Anaheim
Project #: CA17_1022_003

DAILY TOTALS						NB	SB					Total
						0	0	EB	WB			6,531
								3,283	3,248			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			4	8	12	12:00			35	32	67	
00:15			7	7	14	12:15			28	43	71	
00:30			4	2	6	12:30			40	38	78	
00:45			3	18	21	12:45			38	141	179	
01:00			2	1	3	13:00			41	38	79	
01:15			4	1	5	13:15			49	37	86	
01:30			5	4	9	13:30			63	41	104	
01:45			5	16	21	13:45			45	198	243	
02:00			5	0	5	14:00			94	55	149	
02:15			0	0	0	14:15			79	33	112	
02:30			3	1	4	14:30			48	76	124	
02:45			1	9	10	14:45			59	280	339	
03:00			1	3	4	15:00			39	48	87	
03:15			3	1	4	15:15			62	30	92	
03:30			6	3	9	15:30			59	72	131	
03:45			4	14	18	15:45			62	222	284	
04:00			5	2	7	16:00			59	71	130	
04:15			7	4	11	16:15			55	58	113	
04:30			12	6	18	16:30			39	84	123	
04:45			8	32	40	16:45			49	202	251	
05:00			7	6	13	17:00			63	81	144	
05:15			20	8	28	17:15			56	83	139	
05:30			23	19	42	17:30			45	67	112	
05:45			26	76	102	17:45			77	241	318	
06:00			21	20	41	18:00			63	77	140	
06:15			31	34	65	18:15			42	64	106	
06:30			33	27	60	18:30			61	53	114	
06:45			55	140	195	18:45			54	220	274	
07:00			69	56	125	19:00			28	45	73	
07:15			120	73	193	19:15			39	46	85	
07:30			86	48	134	19:30			37	45	82	
07:45			69	344	413	19:45			25	129	154	
08:00			67	64	131	20:00			34	23	57	
08:15			73	64	137	20:15			43	24	67	
08:30			81	65	146	20:30			40	31	71	
08:45			47	268	315	20:45			35	152	187	
09:00			37	38	75	21:00			33	34	67	
09:15			31	27	58	21:15			20	23	43	
09:30			24	34	58	21:30			26	21	47	
09:45			22	114	136	21:45			30	109	139	
10:00			28	37	65	22:00			33	25	58	
10:15			29	35	64	22:15			18	18	36	
10:30			27	38	65	22:30			13	18	31	
10:45			31	115	146	22:45			10	74	84	
11:00			34	42	76	23:00			16	18	34	
11:15			30	34	64	23:15			14	9	23	
11:30			33	43	76	23:30			10	10	20	
11:45			25	31	56	23:45			7	47	54	
TOTALS			1268	1167	2435	TOTALS			2015	2081	4096	
SPLIT %			52.1%	47.9%	37.3%	SPLIT %			49.2%	50.8%	62.7%	

DAILY TOTALS						NB	SB					Total
						0	0	EB	WB			6,531
								3,283	3,248			

AM Peak Hour			07:00	08:00	07:15	PM Peak Hour			13:30	16:30	17:00
AM Pk Volume			344	264	575	PM Pk Volume			281	314	545
PK Hr Factor			0.717	0.930	0.745	PK Hr Factor			0.747	0.935	0.908
7 - 9 Volume	0	0	612	489	1101	4 - 6 Volume	0	0	443	583	1026
7 - 9 Peak Hour			07:00	08:00	07:15	4 - 6 Peak Hour			17:00	16:30	17:00
7 - 9 Pk Volume	0	0	344	264	575	PK Hr Factor	0	0	241	314	545
PK Hr Factor	0.000	0.000	0.717	0.930	0.745	PK Hr Factor	0.000	0.000	0.782	0.935	0.908

VOLUME

South St Bet. East St & State College Blvd

Day: Tuesday
Date: 1/31/2017

City: Anaheim
Project #: CA17_1022_004

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	2,492	2,612	5,104

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			1	4	5	12:00			26	25	51			
00:15			1	3	4	12:15			31	38	69			
00:30			4	1	5	12:30			26	37	63			
00:45			1	7	2	10	12:45		34	117	43	143	77	260
01:00			0	2	2	13:00			37	25	62			
01:15			1	1	2	13:15			24	26	50			
01:30			1	3	4	13:30			44	32	76			
01:45			1	3	3	9	13:45		32	137	30	113	62	250
02:00			1	1	2	14:00			61	38	99			
02:15			1	0	1	14:15			62	42	104			
02:30			3	4	7	14:30			46	76	122			
02:45			1	6	0	5	14:45		40	209	71	227	111	436
03:00			0	1	1	15:00			42	45	87			
03:15			3	1	4	15:15			42	34	76			
03:30			1	0	1	15:30			47	54	101			
03:45			3	7	4	6	15:45		55	186	36	169	91	355
04:00			5	3	8	16:00			50	56	106			
04:15			8	2	10	16:15			51	64	115			
04:30			7	4	11	16:30			44	55	99			
04:45			8	28	6	15	16:45		60	205	33	208	93	413
05:00			8	9	17	17:00			50	53	103			
05:15			18	3	21	17:15			50	75	125			
05:30			17	11	28	17:30			56	58	114			
05:45			22	65	13	36	17:45		49	205	65	251	114	456
06:00			20	15	35	18:00			47	59	106			
06:15			21	27	48	18:15			30	45	75			
06:30			27	22	49	18:30			41	44	85			
06:45			51	119	33	97	18:45		36	154	33	181	69	335
07:00			31	28	59	19:00			26	41	67			
07:15			46	37	83	19:15			21	37	58			
07:30			46	32	78	19:30			30	38	68			
07:45			37	160	50	147	19:45		15	92	37	153	52	245
08:00			63	55	118	20:00			18	19	37			
08:15			72	59	131	20:15			29	23	52			
08:30			85	71	156	20:30			30	27	57			
08:45			39	259	66	251	20:45		21	98	19	88	40	186
09:00			27	27	54	21:00			23	26	49			
09:15			24	23	47	21:15			14	27	41			
09:30			13	21	34	21:30			17	21	38			
09:45			29	93	19	90	21:45		16	70	28	102	44	172
10:00			20	30	50	22:00			19	19	38			
10:15			22	23	45	22:15			14	25	39			
10:30			17	17	34	22:30			6	15	21			
10:45			24	83	31	101	22:45		8	47	10	69	18	116
11:00			39	28	67	23:00			6	10	16			
11:15			19	27	46	23:15			4	7	11			
11:30			33	27	60	23:30			8	8	16			
11:45			31	122	27	109	23:45		2	20	7	32	9	52
TOTALS			952	876	1828	TOTALS			1540	1736	3276			
SPLIT %			52.1%	47.9%	35.8%	SPLIT %			47.0%	53.0%	64.2%			

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	2,492	2,612	5,104

AM Peak Hour			08:00	08:00	08:00	PM Peak Hour			16:45	17:15	17:15
AM Pk Volume			259	251	510	PM Pk Volume			216	257	459
PK Hr Factor			0.762	0.884	0.817	PK Hr Factor			0.900	0.857	0.918
7 - 9 Volume	0	0	419	398	817	4 - 6 Volume	0	0	410	459	869
7 - 9 Peak Hour			08:00	08:00	08:00	4 - 6 Peak Hour			16:45	17:00	17:00
7 - 9 Pk Volume	0	0	259	251	510	PK Hr Factor	0	0	216	251	456
PK Hr Factor	0.000	0.000	0.762	0.884	0.817	PK Hr Factor	0.000	0.000	0.900	0.837	0.912

VOLUME

East St Bet. Santa Ana St & South St

Day: Tuesday
Date: 1/31/2017

City: Anaheim
Project #: CA17_1022_005

DAILY TOTALS					NB	SB	EB	WB	Total
					6,754	7,510	0	0	14,264

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	13	13			26	12:00	97	87			184	
00:15	10	8			18	12:15	72	95			167	
00:30	6	9			15	12:30	89	81			170	
00:45	3	32	4	34	7	12:45	102	360	94	357	196	717
01:00	4	5			9	13:00	94	97			191	
01:15	6	3			9	13:15	80	115			195	
01:30	11	2			13	13:30	96	100			196	
01:45	7	28	6	16	13	13:45	90	360	121	433	211	793
02:00	9	4			13	14:00	102	96			198	
02:15	9	2			11	14:15	103	105			208	
02:30	3	4			7	14:30	112	111			223	
02:45	4	25	3	13	7	14:45	131	448	112	424	243	872
03:00	4	8			12	15:00	129	143			272	
03:15	4	6			10	15:15	145	104			249	
03:30	10	17			27	15:30	171	119			290	
03:45	6	24	8	39	14	15:45	124	569	121	487	245	1056
04:00	9	9			18	16:00	166	123			289	
04:15	10	16			26	16:15	147	102			249	
04:30	16	31			47	16:30	194	121			315	
04:45	21	56	40	96	61	16:45	165	672	113	459	278	1131
05:00	24	29			53	17:00	202	124			326	
05:15	31	38			69	17:15	193	132			325	
05:30	36	71			107	17:30	173	131			304	
05:45	48	139	108	246	156	17:45	156	724	120	507	276	1231
06:00	35	96			131	18:00	153	97			250	
06:15	50	102			152	18:15	123	101			224	
06:30	76	126			202	18:30	117	94			211	
06:45	81	242	196	520	277	18:45	103	496	81	373	184	869
07:00	95	170			265	19:00	99	70			169	
07:15	101	181			282	19:15	85	91			176	
07:30	98	233			331	19:30	64	80			144	
07:45	97	391	259	843	356	19:45	63	311	66	307	129	618
08:00	102	202			304	20:00	57	60			117	
08:15	86	164			250	20:15	53	64			117	
08:30	78	161			239	20:30	70	63			133	
08:45	68	334	146	673	214	20:45	54	234	61	248	115	482
09:00	73	91			164	21:00	43	46			89	
09:15	65	98			163	21:15	59	47			106	
09:30	67	79			146	21:30	50	40			90	
09:45	72	277	86	354	158	21:45	36	188	46	179	82	367
10:00	62	82			144	22:00	54	36			90	
10:15	71	98			169	22:15	50	35			85	
10:30	73	88			161	22:30	35	27			62	
10:45	61	267	95	363	156	22:45	27	166	17	115	44	281
11:00	76	78			154	23:00	24	22			46	
11:15	91	92			183	23:15	18	15			33	
11:30	78	92			170	23:30	20	12			32	
11:45	88	333	98	360	186	23:45	16	78	15	64	31	142
TOTALS	2148	3557			5705	TOTALS	4606	3953			8559	
SPLIT %	37.7%	62.3%			40.0%	SPLIT %	53.8%	46.2%			60.0%	

DAILY TOTALS					NB	SB	EB	WB	Total
					6,754	7,510	0	0	14,264

AM Peak Hour	07:15	07:15			07:15	PM Peak Hour	16:30	17:00			16:30
AM Pk Volume	398	875			1273	PM Pk Volume	754	507			1244
PK Hr Factor	0.975	0.845			0.894	PK Hr Factor	0.933	0.960			0.954
7 - 9 Volume	725	1516	0	0	2241	4 - 6 Volume	1396	966	0	0	2362
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:30	17:00			16:30
7 - 9 Pk Volume	398	875	0	0	1273	PK Hr Factor	754	507	0	0	1244
PK Hr Factor	0.975	0.845	0.000	0.000	0.894	PK Hr Factor	0.933	0.960	0.000	0.000	0.954

VOLUME

East St Bet. South St & Ball Rd

Day: Wednesday
Date: 3/1/2017

City: Anaheim
Project #: CA17_1022_006

DAILY TOTALS					NB	SB					Total	
					6,385	7,438					13,823	
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00	0	6			6	12:00	109	103			212	
00:15	0	4			4	12:15	100	96			196	
00:30	0	4			4	12:30	101	108			209	
00:45	1	1	3	17	4	12:45	86	396	83	390	169	786
01:00	1	7			8	13:00	89	108			197	
01:15	0	3			3	13:15	80	110			190	
01:30	0	2			2	13:30	107	96			203	
01:45	6	7	2	14	8	13:45	83	359	108	422	191	781
02:00	9	2			11	14:00	121	85			206	
02:15	1	2			3	14:15	106	95			201	
02:30	4	1			5	14:30	124	101			225	
02:45	7	21	0	5	7	14:45	119	470	96	377	215	847
03:00	3	9			12	15:00	123	120			243	
03:15	2	10			12	15:15	133	126			259	
03:30	2	14			16	15:30	145	123			268	
03:45	3	10	13	46	16	15:45	146	547	119	488	265	1035
04:00	8	12			20	16:00	138	134			272	
04:15	11	20			31	16:15	149	101			250	
04:30	14	33			47	16:30	154	118			272	
04:45	13	46	49	114	62	16:45	169	610	105	458	274	1068
05:00	27	35			62	17:00	184	128			312	
05:15	15	48			63	17:15	187	125			312	
05:30	34	89			123	17:30	184	132			316	
05:45	33	109	130	302	163	17:45	170	725	110	495	280	1220
06:00	28	76			104	18:00	164	109			273	
06:15	43	103			146	18:15	142	75			217	
06:30	57	136			193	18:30	97	87			184	
06:45	60	188	204	519	264	18:45	122	525	75	346	197	871
07:00	71	196			267	19:00	86	58			144	
07:15	81	196			277	19:15	83	71			154	
07:30	83	246			329	19:30	58	61			119	
07:45	89	324	260	898	349	19:45	59	286	54	244	113	530
08:00	98	218			316	20:00	56	52			108	
08:15	53	160			213	20:15	60	42			102	
08:30	66	179			245	20:30	62	49			111	
08:45	86	303	146	703	232	20:45	54	232	41	184	95	416
09:00	65	107			172	21:00	50	42			92	
09:15	74	89			163	21:15	51	46			97	
09:30	77	93			170	21:30	36	33			69	
09:45	58	274	79	368	137	21:45	31	168	33	154	64	322
10:00	67	92			159	22:00	34	31			65	
10:15	66	81			147	22:15	30	19			49	
10:30	72	96			168	22:30	24	16			40	
10:45	89	294	87	356	176	22:45	17	105	17	83	34	188
11:00	91	91			182	23:00	10	14			24	
11:15	90	85			175	23:15	8	14			22	
11:30	103	112			215	23:30	2	7			9	
11:45	80	364	122	410	202	23:45	1	21	10	45	11	66
TOTALS	1941	3752			5693	TOTALS	4444	3686			8130	
SPLIT %	34.1%	65.9%			41.2%	SPLIT %	54.7%	45.3%			58.8%	

DAILY TOTALS					NB	SB					Total
					6,385	7,438					13,823

AM Peak Hour	11:30	07:15			07:15	PM Peak Hour	17:00	15:15			17:00
AM Pk Volume	392	920			1271	PM Pk Volume	725	502			1220
PK Hr Factor	0.899	0.885			0.910	PK Hr Factor	0.969	0.937			0.965
7 - 9 Volume	627	1601	0	0	2228	4 - 6 Volume	1335	953	0	0	2288
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	351	920	0	0	1271	PK Hr Factor	725	495	0	0	1220
PK Hr Factor	0.895	0.885	0.000	0.000	0.910	PK Hr Factor	0.969	0.938	0.000	0.000	0.965

VOLUME

State College Blvd Bet. South St & Ball Rd

Day: Tuesday
Date: 1/31/2017

City: Anaheim
Project #: CA17_1022_007

DAILY TOTALS					NB	SB	EB	WB	Total
					11,817	12,096	0	0	23,913

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	29	15			44	12:00	178	151			329
00:15	26	19			45	12:15	184	175			359
00:30	20	11			31	12:30	171	158			329
00:45	15	90	12	57	27 147	12:45	169	702	188	672	357 1374
01:00	10	5			15	13:00	155	183			338
01:15	14	7			21	13:15	174	162			336
01:30	9	9			18	13:30	139	185			324
01:45	14	47	6	27	20 74	13:45	199	667	185	715	384 1382
02:00	12	7			19	14:00	208	168			376
02:15	11	4			15	14:15	200	165			365
02:30	11	11			22	14:30	222	192			414
02:45	8	42	7	29	15 71	14:45	199	829	230	755	429 1584
03:00	9	10			19	15:00	223	173			396
03:15	9	8			17	15:15	211	170			381
03:30	8	13			21	15:30	244	199			443
03:45	6	32	24	55	30 87	15:45	256	934	227	769	483 1703
04:00	9	21			30	16:00	248	201			449
04:15	14	27			41	16:15	268	209			477
04:30	23	41			64	16:30	286	196			482
04:45	21	67	37	126	58 193	16:45	284	1086	202	808	486 1894
05:00	18	35			53	17:00	352	203			555
05:15	24	54			78	17:15	345	202			547
05:30	26	59			85	17:30	314	212			526
05:45	56	124	80	228	136 352	17:45	311	1322	199	816	510 2138
06:00	51	88			139	18:00	255	189			444
06:15	80	166			246	18:15	243	173			416
06:30	124	220			344	18:30	205	172			377
06:45	97	352	294	768	391 1120	18:45	157	860	141	675	298 1535
07:00	124	296			420	19:00	168	112			280
07:15	154	343			497	19:15	143	124			267
07:30	126	352			478	19:30	139	96			235
07:45	166	570	368	1359	534 1929	19:45	127	577	103	435	230 1012
08:00	180	338			518	20:00	116	96			212
08:15	204	330			534	20:15	99	90			189
08:30	250	326			576	20:30	92	79			171
08:45	157	791	257	1251	414 2042	20:45	95	402	65	330	160 732
09:00	128	145			273	21:00	114	71			185
09:15	102	160			262	21:15	101	68			169
09:30	92	137			229	21:30	84	54			138
09:45	110	432	141	583	251 1015	21:45	105	404	62	255	167 659
10:00	116	145			261	22:00	74	90			164
10:15	119	130			249	22:15	102	53			155
10:30	105	104			209	22:30	55	48			103
10:45	143	483	125	504	268 987	22:45	52	283	34	225	86 508
11:00	123	133			256	23:00	45	24			69
11:15	126	135			261	23:15	47	22			69
11:30	156	130			286	23:30	26	20			46
11:45	162	567	165	563	327 1130	23:45	36	154	25	91	61 245
TOTALS	3597	5550			9147	TOTALS	8220	6546			14766
SPLIT %	39.3%	60.7%			38.3%	SPLIT %	55.7%	44.3%			61.7%

DAILY TOTALS					NB	SB	EB	WB	Total
					11,817	12,096	0	0	23,913

AM Peak Hour	07:45	07:15			07:45	PM Peak Hour	17:00	15:30			17:00
AM Pk Volume	800	1401			2162	PM Pk Volume	1322	836			2138
PK Hr Factor	0.800	0.952			0.938	PK Hr Factor	0.939	0.921			0.963
7 - 9 Volume	1361	2610	0	0	3971	4 - 6 Volume	2408	1624	0	0	4032
7 - 9 Peak Hour	07:45	07:15			07:45	4 - 6 Peak Hour	17:00	16:45			17:00
7 - 9 Pk Volume	800	1401	0	0	2162	Volume	1322	819	0	0	2138
PK Hr Factor	0.800	0.952	0.000	0.000	0.938	PK Hr Factor	0.939	0.966	0.000	0.000	0.963

VOLUME

Ball Rd Bet. East St & State College Blvd

Day: Tuesday
Date: 1/31/2017

City: Anaheim
Project #: CA17_1022_008

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	18,704	18,898	37,602

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			30	37	67	12:00			269	259	528			
00:15			38	31	69	12:15			274	304	578			
00:30			23	27	50	12:30			226	327	553			
00:45			30	121	21	116	12:45		243	1012	305	1195	548	2207
01:00			32	14	46	13:00			241	289	530			
01:15			27	22	49	13:15			232	266	498			
01:30			30	16	46	13:30			258	322	580			
01:45			29	118	17	69	13:45		282	1013	296	1173	578	2186
02:00			23	23	46	14:00			297	305	602			
02:15			20	24	44	14:15			260	260	520			
02:30			11	26	37	14:30			327	295	622			
02:45			21	75	21	94	14:45		258	1142	295	1155	553	2297
03:00			19	18	37	15:00			276	302	578			
03:15			17	21	38	15:15			290	330	620			
03:30			29	52	81	15:30			368	319	687			
03:45			34	99	33	124	15:45		308	1242	367	1318	675	2560
04:00			25	44	69	16:00			309	333	642			
04:15			37	88	125	16:15			336	346	682			
04:30			65	96	161	16:30			331	309	640			
04:45			67	194	108	336	16:45		303	1279	358	1346	661	2625
05:00			71	124	195	17:00			359	370	729			
05:15			98	138	236	17:15			397	382	779			
05:30			133	160	293	17:30			336	372	708			
05:45			155	457	170	592	17:45		295	1387	340	1464	635	2851
06:00			139	151	290	18:00			351	322	673			
06:15			177	170	347	18:15			274	280	554			
06:30			259	235	494	18:30			260	242	502			
06:45			304	879	229	785	18:45		226	1111	184	1028	410	2139
07:00			281	239	520	19:00			274	215	489			
07:15			330	274	604	19:15			212	161	373			
07:30			346	263	609	19:30			193	143	336			
07:45			378	1335	262	1038	19:45		192	871	128	647	320	1518
08:00			285	304	589	20:00			253	135	388			
08:15			326	304	630	20:15			217	128	345			
08:30			280	268	548	20:30			266	129	395			
08:45			266	1157	286	1162	20:45		279	1015	119	511	398	1526
09:00			227	271	498	21:00			284	115	399			
09:15			203	298	501	21:15			213	168	381			
09:30			209	272	481	21:30			192	113	305			
09:45			186	825	266	1107	21:45		154	843	150	546	304	1389
10:00			181	286	467	22:00			146	164	310			
10:15			169	341	510	22:15			123	135	258			
10:30			223	266	489	22:30			98	95	193			
10:45			225	798	259	1152	22:45		81	448	92	486	173	934
11:00			215	280	495	23:00			69	69	138			
11:15			244	286	530	23:15			98	79	177			
11:30			273	296	569	23:30			69	63	132			
11:45			258	990	314	1176	23:45		57	293	67	278	124	571
TOTALS			7048	7751	14799	TOTALS			11656	11147	22803			
SPLIT %			47.6%	52.4%	39.4%	SPLIT %			51.1%	48.9%	60.6%			

DAILY TOTALS					NB	SB	EB	WB	Total
					0	0	18,704	18,898	37,602

AM Peak Hour			07:15	11:45	07:30	PM Peak Hour			16:45	16:45	16:45
AM Pk Volume			1339	1204	2468	PM Pk Volume			1395	1482	2877
PK Hr Factor			0.886	0.920	0.964	PK Hr Factor			0.878	0.970	0.923
7 - 9 Volume	0	0	2492	2200	4692	4 - 6 Volume	0	0	2666	2810	5476
7 - 9 Peak Hour			07:15	08:00	07:30	4 - 6 Peak Hour			16:45	16:45	16:45
7 - 9 Pk Volume	0	0	1339	1162	2468	4 - 6 Pk Volume	0	0	1395	1482	2877
PK Hr Factor	0.000	0.000	0.886	0.956	0.964	PK Hr Factor	0.000	0.000	0.878	0.970	0.923

APPENDIX B

INTERSECTION ANALYSIS
WORKSHEETS

APPENDIX B-1

INTERSECTION ANALYSIS
WORKSHEETS -
EXISTING CONDITIONS

Scenario Report

Scenario: Ex_AM
 Command: Ex_AM
 Volume: Ex_AM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Existing_AM
 Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: Existing

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 Anaheim Blvd & Santa Ana St	B xxxxx	0.616	B xxxxx	0.616	+ 0.000 V/C
# 2 East St & Santa Ana St	A xxxxx	0.517	A xxxxx	0.517	+ 0.000 V/C
# 3 Anaheim Blvd & South St	A xxxxx	0.573	A xxxxx	0.573	+ 0.000 V/C
# 4 East St & South St	C xxxxx	0.741	C xxxxx	0.741	+ 0.000 V/C
# 5 State College Blvd & South St	B xxxxx	0.660	B xxxxx	0.660	+ 0.000 V/C
# 6 East St & Ball Rd	B xxxxx	0.627	B xxxxx	0.627	+ 0.000 V/C
# 7 State College Blvd & Ball Rd	C xxxxx	0.723	C xxxxx	0.723	+ 0.000 V/C
# 8 Santa Ana Street Driveway	B 11.5	0.029	B 11.5	0.029	+ 0.000 D/V
# 9 South Street West Driveway	A 9.4	0.002	A 9.4	0.002	+ 0.000 D/V
# 10 South Street East Driveway	A 9.5	0.029	A 9.5	0.029	+ 0.000 D/V

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 Anaheim Blvd & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.616
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 30 Level Of Service: B

Street Name: Anaheim Blvd Santa Ana St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	0	

Volume Module:
 Base Vol: 31 494 34 41 854 33 56 204 87 65 178 39
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 31 494 34 41 854 33 56 204 87 65 178 39
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 31 494 34 41 854 33 56 204 87 65 178 39
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 34 536 37 44 926 36 61 221 94 70 193 42
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 34 536 37 44 926 36 61 221 94 70 193 42
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 34 536 37 44 926 36 61 221 94 70 193 42

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.87 0.13 1.00 1.93 0.07 0.16 0.59 0.25 0.23 0.63 0.14
 Final Sat.: 1700 3181 219 1700 3274 126 274 999 426 392 1073 235

Capacity Analysis Module:
 Vol/Sat: 0.02 0.17 0.17 0.03 0.28 0.28 0.04 0.22 0.22 0.04 0.18 0.18
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.517
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 Level Of Service: A

Street Name: East St Santa Ana St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	1	0	1	0	1	0

Volume Module:
 Base Vol: 32 334 30 60 704 36 94 171 85 61 120 75
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 32 334 30 60 704 36 94 171 85 61 120 75
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 32 334 30 60 704 36 94 171 85 61 120 75
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 35 369 33 66 777 40 104 189 94 67 132 83
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 35 369 33 66 777 40 104 189 94 67 132 83
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 35 369 33 66 777 40 104 189 94 67 132 83

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.84 0.16 1.00 1.90 0.10 1.00 0.67 0.33 1.00 0.62 0.38
 Final Sat.: 1700 3120 280 1700 3235 165 1700 1136 564 1700 1046 654

Capacity Analysis Module:
 Vol/Sat: 0.02 0.12 0.12 0.04 0.24 0.24 0.06 0.17 0.17 0.04 0.13 0.13
 Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.573
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 27 Level Of Service: A

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: C

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.660
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: B

Street Name:	State College Blvd				South St										
Approach:	North Bound		South Bound		East Bound		West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected		Protected		Permitted		Permitted								
Rights:	Include		Include		Include		Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	1	0	2	1	0	1	0	2	1	0	0	0	1	0	0

Volume Module:

Base Vol:	71	815	18	15	1319	163	221	8	80	28	9	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	815	18	15	1319	163	221	8	80	28	9	9
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	71	815	18	15	1319	163	221	8	80	28	9	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	82	937	21	17	1516	187	254	9	92	32	10	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	937	21	17	1516	187	254	9	92	32	10	10
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	82	937	21	17	1516	187	254	9	92	32	10	10

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.94	0.06	1.00	2.67	0.33	0.71	0.03	0.26	0.61	0.19	0.20
Final Sat.:	1700	4990	110	1700	4539	561	1216	44	440	1035	333	333

Capacity Analysis Module:

Vol/Sat:	0.05	0.19	0.19	0.01	0.33	0.33	0.15	0.21	0.21	0.02	0.03	0.03
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.627
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 31 Level Of Service: B

Street Name:	East St				Ball Rd										
Approach:	North Bound		South Bound		East Bound		West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected		Protected		Protected		Protected								
Rights:	Include		Include		Include		Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	0	0	0	2	0	0	0	1	1	0	3	0	0

Volume Module:

Base Vol:	0	0	0	443	0	406	168	980	0	0	931	173
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	443	0	406	168	980	0	0	931	173
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	443	0	406	168	980	0	0	931	173
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	0	0	461	0	422	175	1020	0	0	969	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	461	0	422	175	1020	0	0	969	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	461	0	422	175	1020	0	0	969	180

Saturation Flow Module:

Sat/Lane:	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	3.00	0.00	0.00	2.53	0.47
Final Sat.:	0	0	0	3400	0	1700	1700	5100	0	0	4301	799

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.25	0.10	0.20	0.00	0.00	0.23	0.23
Crit Moves:				****			****			****		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[9.4]

Street Name: Proj Driveway South St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 1 0 0 1 0 0

Volume Module:
Base Vol: 0 0 0 0 0 2 0 342 0 0 0 233 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 2 0 342 0 0 0 233 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 0 2 0 342 0 0 0 233 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 2 0 342 0 0 0 233 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 2 0 342 0 0 0 233 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxxx xxxxx xxxxx 6.2 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
FollowUpTim:xxxxx xxxx xxxxxx xxxxxx xxxxx 3.3 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxxx xxxxx xxxxx 233 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 811 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 811 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx xxxxx xxxxx 0.00 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx 0.0 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx xxxxxx xxxxx 9.4 xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 9.4 xxxxxx xxxxxx
ApproachLOS: * A * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: A[9.5]

Street Name: Proj Driveway South St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 1 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 0 0 1 38 342 0 0 0 233 21
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 1 38 342 0 0 0 233 21
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 0 1 38 342 0 0 0 233 21
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 1 38 342 0 0 0 233 21
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 1 38 342 0 0 0 233 21

Critical Gap Module:
Critical Gp:xxxxxx xxxxx xxxxxx xxxxxx xxxxx 6.2 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
FollowUpTim:xxxxxx xxxxx xxxxxx xxxxxx xxxxx 3.3 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx xxxxx xxxxx 244 254 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 800 1323 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 800 1323 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx xxxxx xxxxx 0.00 0.03 xxxxx xxxxx xxxxx xxxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx 0.0 0.1 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx xxxxxx xxxxx 9.5 7.8 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * * A A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 9.5 xxxxxx xxxxxx
ApproachLOS: * A * *

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Ex_PM
 Command: Ex_PM.rtf
 Volume: Ex_PM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Existing_PM
 Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: Existing

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
# 1 Anaheim Blvd & Santa Ana St	LOS Veh	C	LOS Veh	C	+ 0.000 V/C
	B xxxxx	0.659	B xxxxx	0.659	
# 2 East St & Santa Ana St	A xxxxx	0.532	A xxxxx	0.532	+ 0.000 V/C
# 3 Anaheim Blvd & South St	B xxxxx	0.634	B xxxxx	0.634	+ 0.000 V/C
# 4 East St & South St	B xxxxx	0.648	B xxxxx	0.648	+ 0.000 V/C
# 5 State College Blvd & South St	A xxxxx	0.497	A xxxxx	0.497	+ 0.000 V/C
# 6 East St & Ball Rd	C xxxxx	0.736	C xxxxx	0.736	+ 0.000 V/C
# 7 State College Blvd & Ball Rd	C xxxxx	0.725	C xxxxx	0.725	+ 0.000 V/C
# 8 Santa Ana Street Driveway	B 11.0	0.046	B 11.0	0.046	+ 0.000 D/V
# 9 South Street West Driveway	A 9.9	0.018	A 9.9	0.018	+ 0.000 D/V
# 10 South Street East Driveway	B 11.1	0.038	B 11.1	0.038	+ 0.000 D/V

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #1 Anaheim Blvd & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: B

Street Name:	Anaheim Blvd						Santa Ana St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:
 Base Vol: 72 1059 48 65 715 54 46 171 42 49 221 54
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 72 1059 48 65 715 54 46 171 42 49 221 54
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 72 1059 48 65 715 54 46 171 42 49 221 54
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96
 PHF Volume: 75 1109 50 68 749 57 48 179 44 51 231 57
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 75 1109 50 68 749 57 48 179 44 51 231 57
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 75 1109 50 68 749 57 48 179 44 51 231 57

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.91 0.09 1.00 1.86 0.14 0.18 0.66 0.16 0.15 0.68 0.17
 Final Sat.: 1700 3253 147 1700 3161 239 302 1122 276 257 1160 283

Capacity Analysis Module:
 Vol/Sat: 0.04 0.34 0.34 0.04 0.24 0.24 0.03 0.16 0.16 0.03 0.20 0.20
 Crit Moves: ****

Level Of Service Computation Report
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

 Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.532
 Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 25 Level Of Service: A

Street Name:	East St						Santa Ana St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:
 Base Vol: 50 647 38 92 442 44 60 133 32 35 187 70
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 50 647 38 92 442 44 60 133 32 35 187 70
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 50 647 38 92 442 44 60 133 32 35 187 70
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 55 706 41 100 482 48 65 145 35 38 204 76
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 55 706 41 100 482 48 65 145 35 38 204 76
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 55 706 41 100 482 48 65 145 35 38 204 76

Saturation Flow Module:
 Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 1.89 0.11 1.00 1.82 0.18 1.00 0.81 0.19 1.00 0.73 0.27
 Final Sat.: 1700 3211 189 1700 3092 308 1700 1370 330 1700 1237 463

Capacity Analysis Module:
 Vol/Sat: 0.03 0.22 0.22 0.06 0.16 0.16 0.04 0.11 0.11 0.02 0.16 0.16
 Crit Moves: ****

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.634
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.497
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with columns for Street Name (State College Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and Volume (Min. Green, Y+R, Lanes).

Table with columns for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with columns for Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with columns for Capacity Analysis Module (Vol/Sat, Crit Moves).

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.736
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: C

Table with columns for Street Name (East St, Ball Rd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and Volume (Min. Green, Y+R, Lanes).

Table with columns for Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Table with columns for Saturation Flow Module (Sat/Lane, Adjustment, Lanes, Final Sat.).

Table with columns for Capacity Analysis Module (Vol/Sat, Crit Moves).

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[9.9]

Street Name: Proj Driveway South St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 1 0 0 1 0 0

Volume Module:
Base Vol: 0 0 0 0 0 13 0 241 0 0 0 304 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 13 0 241 0 0 0 304 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 0 13 0 241 0 0 0 304 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 13 0 241 0 0 0 304 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 13 0 241 0 0 0 304 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxxx xxxxx xxxxx 6.2 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
FollowUpTim:xxxxx xxxx xxxxxx xxxxxx xxxxx 3.3 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxxx xxxxx xxxxx 304 xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 740 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx 740 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx xxxxx xxxxx 0.02 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx xxxxxx xxxxx 9.9 xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 9.9 xxxxxx xxxxxx
ApproachLOS: * A * * *

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[11.1]

Street Name: Proj Driveway South St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 1! 0 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 15 0 28 2 241 0 0 0 304 1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 15 0 28 2 241 0 0 0 304 1
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 15 0 28 2 241 0 0 0 304 1
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 15 0 28 2 241 0 0 0 304 1
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 15 0 28 2 241 0 0 0 304 1

Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx 6.4 6.5 6.2 4.1 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
FollowUpTim:xxxxxx xxxxx xxxxxx 3.5 4.0 3.3 2.2 xxxxx xxxxxx xxxxxx xxxxx xxxxxx

Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx 550 550 305 305 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Potent Cap.: xxxxx xxxxx xxxxxx 500 446 740 1267 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Move Cap.: xxxxx xxxxx xxxxxx 499 445 740 1267 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Volume/Cap: xxxxx xxxxx xxxxx 0.03 0.00 0.04 0.00 xxxxx xxxxx xxxxx xxxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 7.8 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx 633 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue:xxxxxx xxxxx xxxxxx xxxxxx 0.2 xxxxxx 0.0 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shrd ConDel:xxxxxx xxxxx xxxxxx xxxxxx 11.1 xxxxxx 7.8 xxxxx xxxxxx xxxxxx xxxxx xxxxxx
Shared LOS: * * * * * B * A * * * * *
ApproachDel: xxxxxx 11.1 xxxxxx xxxxxx
ApproachLOS: * B * * *

Note: Queue reported is the number of cars per lane.

APPENDIX B-2

INTERSECTION ANALYSIS
WORKSHEETS -
EXISTING PLUS PROJECT

Scenario Report

Scenario: Ex+Proj_AM

Command: Ex+Proj_AM

Volume: Ex WP AM

Geometry: Existing

Impact Fee: Default Impact Fee

Trip Generation: Project_AM

Trip Distribution: Project

Paths: Default Path

Routes: Default Route

Configuration: Existing

Trip Generation Report

Forecast for Existing Freeman_AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Santa Ana St	1.00	Residential	0.00	0.00	0	0	0	0.0
2	South St Res	1.00	Residential	0.00	0.00	0	0	0	0.0
3	Existing Fre	-1.00	Existing Freem	0.00	2.00	0	-2	-2	-1.4
Zone 3 Subtotal						0	-2	-2	-1.4
4	Existing Fre	-1.00	Existing Freem	45.00	23.00	-45	-23	-68	-48.9
Zone 4 Subtotal						-45	-23	-68	-48.9
5	South Street	1.00	Residential	0.00	0.00	0	0	0	0.0
6	Existing Fre	-1.00	Existing Freem	59.00	1.00	-59	-1	-60	-43.2
Zone 6 Subtotal						-59	-1	-60	-43.2
TOTAL						-104	-26	-130	-93.5

Trip Generation Report

Forecast for Residential_AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Santa Ana St	1.00	Residential	18.00	61.00	18	61	79	56.8
	Zone 1 Subtotal					18	61	79	56.8
2	South St Res	1.00	Residential	6.00	24.00	6	24	30	21.6
	Zone 2 Subtotal					6	24	30	21.6
5	South Street	1.00	Residential	32.00	128.00	32	128	160	115.1
	Zone 5 Subtotal					32	128	160	115.1
TOTAL						56	213	269	193.5

Trip Distribution Report

Percent Of Trips Project

Zone	To Gates					
	1	2	3	4	5	6
1	25.0	25.0	15.0	10.0	15.0	10.0
2	25.0	25.0	15.0	10.0	15.0	10.0
3	0.0	10.0	20.0	5.0	40.0	25.0
4	0.0	10.0	20.0	5.0	40.0	25.0
5	25.0	25.0	15.0	10.0	15.0	10.0
6	0.0	10.0	20.0	5.0	40.0	25.0

Turning Movement Report
Existing Freeman_AM + Residential_AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Anaheim Blvd & Santa Ana St													
Base	31	494	34	41	854	33	56	204	87	65	178	39	2116
Added	0	22	-9	-15	-18	0	0	0	0	0	0	0	-20
Total	31	516	25	26	836	33	56	204	87	65	178	39	2096
#2 East St & Santa Ana St													
Base	32	334	30	60	704	36	94	171	85	61	120	75	1802
Added	5	15	11	0	1	0	5	5	28	-3	-6	0	61
Total	37	349	41	60	705	36	99	176	113	58	114	75	1863
#3 Anaheim Blvd & South St													
Base	14	470	43	35	972	20	32	106	45	153	122	55	2067
Added	0	-9	-11	-18	0	0	0	0	0	14	0	22	-2
Total	14	461	32	17	972	20	32	106	45	167	122	77	2065
#4 East St & South St													
Base	33	264	33	42	745	61	47	159	82	80	97	75	1718
Added	10	3	0	7	21	-2	26	30	57	0	0	1	153
Total	43	267	33	49	766	59	73	189	139	80	97	76	1871
#5 State College Blvd & South St													
Base	71	815	18	15	1319	163	221	8	80	28	9	9	2756
Added	4	0	0	0	0	-3	11	0	26	0	0	0	38
Total	75	815	18	15	1319	160	232	8	106	28	9	9	2794
#6 East St & Ball Rd													
Base	0	0	0	443	0	406	168	980	0	0	931	173	3101
Added	0	0	0	78	0	0	0	0	0	0	0	13	91
Total	0	0	0	521	0	406	168	980	0	0	931	186	3192
#7 State College Blvd & Ball Rd													
Base	120	486	110	251	1029	252	219	825	324	263	848	86	4813
Added	11	4	0	13	13	0	0	38	40	0	3	1	123
Total	131	490	110	264	1042	252	219	863	364	263	851	87	4936
#8 Santa Ana Street Driveway													
Base	15	0	8	0	0	0	0	292	30	15	184	0	544
Added	0	0	38	0	0	0	0	0	-25	-2	0	0	11
Total	15	0	46	0	0	0	0	292	5	13	184	0	555
#9 South Street West Driveway													
Base	0	0	0	1	0	1	0	342	0	0	233	0	577
Added	0	0	0	17	0	5	2	-30	0	0	31	5	30
Proj V	0	0	0	0	0	0	0	38	0	0	1	0	39
Total	0	0	0	18	0	6	2	350	0	0	265	5	646

Volume Northbound Southbound Eastbound Westbound Total
Type Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume

#10 South Street East Driveway														
Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Base	0	0	0	0	0	0	1	38	342	0	0	233	21	635
Added	0	0	0	96	0	31	-30	17	0	0	5	3	3	122
PassBy	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	96	0	32	8	360	0	0	238	24	758	

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
# 1 Anaheim Blvd & Santa Ana St	LOS Veh	C	LOS Veh	C	-0.006 V/C
	B xxxxxx	0.616	B xxxxxx	0.610	
# 2 East St & Santa Ana St	A xxxxx	0.517	A xxxxx	0.540	+ 0.023 V/C
# 3 Anaheim Blvd & South St	A xxxxx	0.573	A xxxxx	0.582	+ 0.009 V/C
# 4 East St & South St	C xxxxx	0.741	D xxxxx	0.815	+ 0.074 V/C
# 5 State College Blvd & South St	B xxxxx	0.660	B xxxxx	0.687	+ 0.027 V/C
# 6 East St & Ball Rd	B xxxxx	0.627	B xxxxx	0.629	+ 0.003 V/C
# 7 State College Blvd & Ball Rd	C xxxxx	0.723	C xxxxx	0.744	+ 0.021 V/C
# 8 Santa Ana Street Driveway	B	11.5 0.029	B	10.8 0.061	-0.697 D/V
# 9 South Street West Driveway	B	11.0 0.002	B	12.5 0.040	+ 1.504 D/V
# 10 South Street East Driveway	A	9.5 0.029	B	14.6 0.214	+ 5.058 D/V

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #1 Anaheim Blvd & Santa Ana St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.610
Loss Time (sec):      5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        30          Level Of Service:            B
*****
Street Name:          Anaheim Blvd          Santa Ana St
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Permitted          Permitted          Permitted          Permitted
Rights:                 Include           Include           Include           Include
Min. Green:             0 0 0             0 0 0             0 0 0             0 0 0
Y+R:                   4.0 4.0 4.0       4.0 4.0 4.0       4.0 4.0 4.0       4.0 4.0 4.0
Lanes:                  1 0 1 1 0         1 0 1 1 0         0 0 1! 0 0         0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:               31 494 34          41 854 33          56 204 87          65 178 39
Growth Adj:             1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Initial Bse:            31 494 34          41 854 33          56 204 87          65 178 39
Added Vol:              0 22 -9           -15 -18 0          0 0 0 0            0 0 0 0
PasserByVol:           0 0 0             0 0 0             0 0 0 0            0 0 0 0
Initial Fut:            31 516 25          26 836 33          56 204 87          65 178 39
User Adj:               1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:                0.92 0.92 0.92    0.92 0.92 0.92    0.92 0.92 0.92    0.92 0.92 0.92
PHF Volume:            34 560 27          28 907 36          61 221 94          70 193 42
Reduct Vol:             0 0 0             0 0 0             0 0 0 0            0 0 0 0
Reduced Vol:           34 560 27          28 907 36          61 221 94          70 193 42
PCE Adj:                1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:                1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:           34 560 27          28 907 36          61 221 94          70 193 42
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1700 1700 1700    1700 1700 1700    1700 1700 1700    1700 1700 1700
Adjustment:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Lanes:                 1.00 1.91 0.09    1.00 1.92 0.08    0.16 0.59 0.25    0.23 0.63 0.14
Final Sat.:           1700 3243 157    1700 3271 129    274 999 426        392 1073 235
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.02 0.17 0.17    0.02 0.28 0.28    0.04 0.22 0.22    0.04 0.18 0.18
Crit Moves:           ****                ****                ****                ****
*****

```


Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.540
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Table with columns for Street Name (East St, Santa Ana St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.582
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: D

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.687
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level Of Service: B

Table with columns for Street Name (State College Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.629
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Table with columns for Street Name (East St, Ball Rd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 State College Blvd & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.744
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: C

Table with columns for Street Name (State College Blvd, Ball Rd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Santa Ana Street Driveway

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[10.8]

Table with columns: Street Name, Proj Driveway, Santa Ana St, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[12.5]

Table with columns: Street Name, Proj Driveway, South St, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B [14.6]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, South St, West Bound. Rows: Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume. Rows: North Bound, South Bound, East Bound, South St, West Bound.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim. Rows: North Bound, South Bound, East Bound, South St, West Bound.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows: North Bound, South Bound, East Bound, South St, West Bound.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows: North Bound, South Bound, East Bound, South St, West Bound.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: Ex+Proj_PM

Command: Ex+Proj_PM

Volume: EX WP PM

Geometry: Existing

Impact Fee: Default Impact Fee

Trip Generation: Project_PM

Trip Distribution: Project

Paths: Default Path

Routes: Default Route

Configuration: Existing

Trip Generation Report

Forecast for Residential_PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Santa Ana St	1.00	Residential	62.00	38.00	62	38	100	43.7
	Zone 1 Subtotal					62	38	100	43.7
2	South St Res	1.00	Residential	21.00	13.00	21	13	34	14.8
	Zone 2 Subtotal					21	13	34	14.8
5	South Street	1.00	Residential	127.00	67.00	127	67	194	84.7
	Zone 5 Subtotal					127	67	194	84.7
TOTAL						210	118	328	143.2

Trip Generation Report

Forecast for Existing Freeman_PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
3	Existing Fre	-1.00	Existing Freem	0.00	13.00	0	-13	-13	-5.7
	Zone 3 Subtotal					0	-13	-13	-5.7
4	Existing Fre	-1.00	Existing Freem	0.00	40.00	0	-40	-40	-17.5
	Zone 4 Subtotal					0	-40	-40	-17.5
6	Existing Fre	-1.00	Existing Freem	3.00	43.00	-3	-43	-46	-20.1
	Zone 6 Subtotal					-3	-43	-46	-20.1
TOTAL						-3	-96	-99	-43.2

Trip Distribution Report

Percent Of Trips Project

Zone	To Gates					
	1	2	3	4	5	6
1	25.0	25.0	15.0	10.0	15.0	10.0
2	25.0	25.0	15.0	10.0	15.0	10.0
3	0.0	10.0	20.0	5.0	40.0	25.0
4	0.0	10.0	20.0	5.0	40.0	25.0
5	25.0	25.0	15.0	10.0	15.0	10.0
6	0.0	10.0	20.0	5.0	40.0	25.0

Turning Movement Report
Residential_PM + Existing Freeman_PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Anaheim Blvd & Santa Ana St													
Base	72	1059	48	65	715	54	46	171	42	49	221	54	2596
Added	0	-10	6	9	21	0	0	0	0	-6	0	-10	10
Total	72	1049	54	74	736	54	46	171	42	43	221	44	2606
#2 East St & Santa Ana St													
Base	50	647	38	92	442	44	60	133	32	35	187	70	1830
Added	31	5	0	0	15	6	2	-2	15	11	9	0	92
Total	81	652	38	92	457	50	62	131	47	46	196	70	1922
#3 Anaheim Blvd & South St													
Base	48	1034	90	60	711	25	18	137	30	121	172	53	2499
Added	0	6	14	21	-6	0	0	0	0	-6	0	-10	19
Total	48	1040	104	81	705	25	18	137	30	115	172	43	2518
#4 East St & South St													
Base	66	621	59	63	392	49	43	131	38	27	190	61	1740
Added	55	23	0	4	11	25	6	9	26	0	29	8	196
Total	121	644	59	67	403	74	49	140	64	27	219	69	1936
#5 State College Blvd & South St													
Base	128	1194	59	19	818	208	150	21	43	31	26	14	2711
Added	26	0	0	0	0	11	0	0	12	0	0	0	49
Total	154	1194	59	19	818	219	150	21	55	31	26	14	2760
#6 East St & Ball Rd													
Base	0	0	0	302	0	295	347	1165	0	0	1085	340	3534
Added	0	0	0	37	0	0	0	0	0	0	0	79	116
Total	0	0	0	339	0	295	347	1165	0	0	1085	419	3650
#7 State College Blvd & Ball Rd													
Base	302	969	171	256	465	151	242	1063	164	86	971	191	5031
Added	39	13	0	5	7	0	0	15	22	0	39	13	153
Total	341	982	171	261	472	151	242	1078	186	86	1010	204	5184
#8 Santa Ana Street Driveway													
Base	26	0	14	0	0	0	0	216	0	0	235	0	491
Added	-17	0	15	0	0	0	0	0	16	47	0	0	61
Total	9	0	29	0	0	0	0	216	16	47	235	0	552
#9 South Street West Driveway													
Base	0	0	0	4	0	9	0	241	0	0	304	0	558
Added	0	0	0	5	0	-5	5	30	0	0	-11	16	40
Proj V	0	0	0	0	0	0	0	2	0	0	28	0	30
Total	0	0	0	9	0	4	5	273	0	0	321	16	628

Volume Northbound Southbound Eastbound Westbound Total
Type Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume

#10 South Street East Driveway													
Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Base	0	0	0	15	0	28	2	241	0	0	304	1	591
Added	0	0	0	35	0	-11	30	5	0	0	16	94	169
PassBy	0	0	0	0	0	0	0	5	0	0	0	0	5
Total	0	0	0	50	0	17	32	251	0	0	320	95	765

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
# 1 Anaheim Blvd & Santa Ana St	LOS Veh	C	LOS Veh	C	-0.006 V/C
	B xxxxxx	0.659	B xxxxxx	0.653	
# 2 East St & Santa Ana St	A xxxxxx	0.532	A xxxxxx	0.541	+ 0.009 V/C
# 3 Anaheim Blvd & South St	B xxxxxx	0.634	B xxxxxx	0.650	+ 0.016 V/C
# 4 East St & South St	B xxxxxx	0.648	B xxxxxx	0.691	+ 0.043 V/C
# 5 State College Blvd & South St	A xxxxxx	0.497	A xxxxxx	0.523	+ 0.026 V/C
# 6 East St & Ball Rd	C xxxxxx	0.736	C xxxxxx	0.752	+ 0.016 V/C
# 7 State College Blvd & Ball Rd	C xxxxxx	0.725	C xxxxxx	0.740	+ 0.015 V/C
# 8 Santa Ana Street Driveway	B 11.0	0.046	B 10.4	0.035	-0.600 D/V
# 9 South Street West Driveway	B 10.7	0.012	B 12.2	0.020	+ 1.480 D/V
# 10 South Street East Driveway	B 11.1	0.038	B 14.3	0.122	+ 3.165 D/V

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #1 Anaheim Blvd & Santa Ana St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.653
Loss Time (sec):      5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        33          Level Of Service:            B
*****
Street Name:          Anaheim Blvd          Santa Ana St
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:              Permitted          Permitted          Permitted          Permitted
Rights:               Include           Include           Include           Include
Min. Green:           0 0 0             0 0 0             0 0 0             0 0 0
Y+R:                  4.0 4.0 4.0       4.0 4.0 4.0       4.0 4.0 4.0       4.0 4.0 4.0
Lanes:                1 0 1 1 0         1 0 1 1 0         0 0 1! 0 0         0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:              72 1059           48 65 715          54 46 171          42 49 221          54
Growth Adj:            1.00 1.00         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Initial Bse:           72 1059           48 65 715          54 46 171          42 49 221          54
Added Vol:             0 -10             6 9 21             0 0 0              -6 0 -10
PasserByVol:          0 0 0             0 0 0             0 0 0              0 0 0
Initial Fut:           72 1049           54 74 736          54 46 171          42 43 221          44
User Adj:              1.00 1.00         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
PHF Adj:              0.96 0.96         0.96 0.96 0.96     0.96 0.96 0.96     0.96 0.96 0.96
PHF Volume:           75 1098           57 77 771          57 48 179          44 45 231          46
Reduct Vol:           0 0 0             0 0 0             0 0 0              0 0 0
Reduced Vol:          75 1098           57 77 771          57 48 179          44 45 231          46
PCE Adj:              1.00 1.00         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
MLF Adj:              1.00 1.00         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
FinalVolume:          75 1098           57 77 771          57 48 179          44 45 231          46
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1700 1700          1700 1700 1700     1700 1700 1700     1700 1700 1700
Adjustment:           1.00 1.00         1.00 1.00 1.00     1.00 1.00 1.00     1.00 1.00 1.00
Lanes:                1.00 1.90         0.10 1.00 1.86     0.14 0.18 0.66     0.16 0.14 0.72     0.14
Final Sat.:           1700 3234         166 1700 3168     232 302 1122       276 237 1220       243
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.04 0.34         0.34 0.05 0.24     0.24 0.03 0.16     0.16 0.03 0.19     0.19
Crit Moves:           ****             ****             ****             ****
*****

```

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.541
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Table with columns for Street Name (East St, Santa Ana St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.650
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 36 Level of Service: B

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.523
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level of Service: A

Table with columns for Street Name (State College Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.752
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: C

Table with columns for Street Name (East St, Ball Rd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 State College Blvd & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: C

Table with columns for Street Name (State College Blvd, Ball Rd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Santa Ana Street Driveway

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[10.4]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[12.2]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, and Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[14.3]

Table with columns: Street Name, Proj Driveway, South St, West Bound. Rows: Approach, Movement, Control, Rights, Lanes.

Volume Module: Table with columns for various volume metrics (Base Vol, Growth Adj, Initial Bse, etc.) and values.

Critical Gap Module: Table with columns for Critical Gp, FollowUpTim, and values.

Capacity Module: Table with columns for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. and values.

Level Of Service Module: Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

APPENDIX B-3

INTERSECTION ANALYSIS
WORKSHEETS -
YEAR 2019 NEAR TERM

Scenario Report

Scenario: 2019 NT_AM
 Command: 2019 NT_AM
 Volume: 2019NT_AM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Existing_AM
 Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: 2019 NT

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
# 1 Anaheim Blvd & Santa Ana St	LOS Veh	C	LOS Veh	C	
	B xxxxx	0.627	B xxxxx	0.627	+ 0.000 V/C
# 2 East St & Santa Ana St	A xxxxx	0.526	A xxxxx	0.526	-0.001 V/C
# 3 Anaheim Blvd & South St	A xxxxx	0.583	A xxxxx	0.582	-0.001 V/C
# 4 East St & South St	C xxxxx	0.755	C xxxxx	0.756	+ 0.002 V/C
# 5 State College Blvd & South St	B xxxxx	0.672	B xxxxx	0.672	+ 0.000 V/C
# 6 East St & Ball Rd	B xxxxx	0.638	B xxxxx	0.638	+ 0.000 V/C
# 7 State College Blvd & Ball Rd	C xxxxx	0.737	C xxxxx	0.737	+ 0.000 V/C
# 8 Santa Ana Street Driveway	A	7.2 0.000	B	11.6 0.030	+ 4.400 D/V
# 9 South Street West Driveway	A	0.0 0.000	A	9.5 0.002	+ 9.476 D/V
# 10 South Street East Driveway	A	7.2 0.000	A	9.5 0.029	+ 2.331 D/V

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Anaheim Blvd & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.627
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 31 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Anaheim Blvd and Santa Ana St.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns for Vol/Sat, Crit Moves for Capacity Analysis Module.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.526
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for East St and Santa Ana St.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns for Vol/Sat, Crit Moves for Capacity Analysis Module.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.582
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level Of Service: A

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: C

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.638
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for North Bound, South Bound, East Bound, West Bound.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 State College Blvd & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.737
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 41 Level Of Service: C

Street Name: State College Blvd Ball Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Lanes: 2 0 3 0 1 2 0 2 1 0 1 0 2 1 0

Volume Module:
Base Vol: 120 486 110 251 1029 252 219 825 324 263 848 86
Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse: 122 496 112 256 1050 257 223 842 331 268 865 88
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 122 496 112 256 1050 257 223 842 331 268 865 88
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99 0.99
PHF Volume: 124 501 113 259 1060 260 226 850 334 271 874 89
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 124 501 113 259 1060 260 226 850 334 271 874 89
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 124 501 113 259 1060 260 226 850 334 271 874 89

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 2.41 0.59 1.00 2.15 0.85 1.00 2.72 0.28
Final Sat.: 3400 5100 1700 3400 4097 1003 1700 3662 1438 1700 4630 470

Capacity Analysis Module:
Vol/Sat: 0.04 0.10 0.07 0.08 0.26 0.26 0.13 0.23 0.23 0.16 0.19 0.19
Crit Moves: ****

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Santa Ana Street Driveway

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: B[11.6]

Street Name: Proj Driveway Santa Ana St West Bound
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 0 1 0 0 1 0 0 0

Volume Module:
Base Vol: 0 0 0 0 0 0 0 0 292 0 0 184 0
Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse: 0 0 0 0 0 0 0 0 298 0 0 188 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 15 0 8 0 0 0 0 0 0 30 15 0 0
Initial Fut: 15 0 8 0 0 0 0 0 298 30 15 188 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 15 0 8 0 0 0 0 0 298 30 15 188 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 15 0 8 0 0 0 0 0 298 30 15 188 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 7.1 6.5 6.2 xxxxx xxxx xxxxx 4.1 xxxx xxxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 xxxxx xxxx xxxxx 2.2 xxxx xxxxxx

Capacity Module:
Cnflct Vol: 531 531 313 535 546 188 xxxxx xxxx xxxxx 328 xxxx xxxxxx
Potent Cap.: 513 457 732 460 448 859 xxxxx xxxx xxxxx 1243 xxxx xxxxxx
Move Cap.: 508 451 732 450 443 859 xxxxx xxxx xxxxx 1243 xxxx xxxxxx
Volume/Cap: 0.03 0.00 0.01 0.00 0.00 0.00 xxxxx xxxx xxxxx 0.01 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxxx
Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 7.9 xxxxx xxxxxx
LOS by Move: * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 568 xxxxxx xxxxx 0 xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
SharedQueue: xxxxxx 0.1 xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx
Shrd ConDel: xxxxxx 11.6 xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 7.9 xxxxx xxxxxx
Shared LOS: * B * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
ApproachDel: 11.6 xxxxxxxx xxxxxxxx xxxxxxxx
ApproachLOS: B * * * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[9.5]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: A[9.5]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2019 NT_PM
 Command: 2019 NT_PM
 Volume: 2019NT_PM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Existing_PM
 Trip Distribution: None
 Paths: Default Path
 Routes: Default Route
 Configuration: 2019 NT

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 Anaheim Blvd & Santa Ana St	B xxxxx	0.671	B xxxxx	0.671	+ 0.000 V/C
# 2 East St & Santa Ana St	A xxxxx	0.542	A xxxxx	0.540	-0.001 V/C
# 3 Anaheim Blvd & South St	B xxxxx	0.645	B xxxxx	0.647	+ 0.001 V/C
# 4 East St & South St	B xxxxx	0.660	B xxxxx	0.661	+ 0.001 V/C
# 5 State College Blvd & South St	A xxxxx	0.506	A xxxxx	0.506	+ 0.000 V/C
# 6 East St & Ball Rd	C xxxxx	0.750	C xxxxx	0.750	+ 0.000 V/C
# 7 State College Blvd & Ball Rd	C xxxxx	0.738	C xxxxx	0.738	+ 0.000 V/C
# 8 Santa Ana Street Driveway	A 0.0	0.000	B 11.1	0.046	+11.067 D/V
# 9 South Street West Driveway	A 0.0	0.000	A 10.0	0.018	+ 9.988 D/V
# 10 South Street East Driveway	A 7.2	0.000	B 11.2	0.038	+ 3.968 D/V

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Anaheim Blvd & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Anaheim Blvd and Santa Ana St.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.540
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for East St and Santa Ana St.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.661
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 Level Of Service: B

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.506
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with columns for Street Name (State College Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for various movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for various movements.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for various movements.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.750
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: C

Table with columns for Street Name (East St, Ball Rd), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for various movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for various movements.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for various movements.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 State College Blvd & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level of Service: C

Street Name: State College Blvd Ball Rd
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include

Volume Module:
Base Vol: 302 969 171 256 465 151 242 1063 164 86 971 191
Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse: 308 988 174 261 474 154 247 1084 167 88 991 195

Saturation Flow Module:
Sat/Lane: 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 3.00 1.00 2.00 2.26 0.74 1.00 2.60 0.40 1.00 2.51 0.49

Capacity Analysis Module:
Vol/Sat: 0.10 0.21 0.11 0.08 0.13 0.13 0.15 0.26 0.26 0.05 0.25 0.25
Crit Moves: ****

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Santa Ana Street Driveway

Average Delay (sec/veh): 0.9 Worst Case Level of Service: B[11.1]

Street Name: Proj Driveway Santa Ana St West Bound
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 0 0 0 0 0 0 0 0 216 0 0 0 235 0
Growth Adj: 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse: 0 0 0 0 0 0 0 0 220 0 0 0 240 0

Critical Gap Module:
Critical Gap: 6.4 6.5 6.2 7.1 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Conflict Vol: 460 460 220 467 460 240 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: 563 501 824 509 501 804 xxxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: 563 501 824 501 501 804 xxxxx xxxx xxxxx xxxx xxxx xxxxx

Level of Service Module:
2Way95thQ: xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared Queue: xxxxx 0.2 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel: xxxxx 11.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * B * * * * * * * * * * * * * * * *
ApproachDel: 11.1 xxxxxxx xxxxxxx xxxxxxx
ApproachLOS: B * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: A[10.0]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[11.2]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

APPENDIX B-4

INTERSECTION ANALYSIS
WORKSHEETS -
YEAR 2019 NEAR TERM PLUS PROJECT

Scenario Report

Scenario: 2019 NT+Proj_AM
 Command: 2019 NT+Proj_AM
 Volume: OY WP AM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Project_AM
 Trip Distribution: Project
 Paths: Default Path
 Routes: Default Route
 Configuration: 2019 NT

Trip Generation Report

Forecast for Existing Freeman_AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Santa Ana St	1.00	Residential	0.00	0.00	0	0	0	0.0
2	South St Res	1.00	Residential	0.00	0.00	0	0	0	0.0
3	Existing Fre	-1.00	Existing Freem	0.00	2.00	0	-2	-2	-1.4
Zone 3 Subtotal						0	-2	-2	-1.4
4	Existing Fre	-1.00	Existing Freem	45.00	23.00	-45	-23	-68	-48.9
Zone 4 Subtotal						-45	-23	-68	-48.9
5	South Street	1.00	Residential	0.00	0.00	0	0	0	0.0
6	Existing Fre	-1.00	Existing Freem	59.00	1.00	-59	-1	-60	-43.2
Zone 6 Subtotal						-59	-1	-60	-43.2
TOTAL						-104	-26	-130	-93.5

Trip Generation Report

Forecast for Residential_AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Santa Ana St	1.00	Residential	18.00	61.00	18	61	79	56.8
	Zone 1 Subtotal					18	61	79	56.8
2	South St Res	1.00	Residential	6.00	24.00	6	24	30	21.6
	Zone 2 Subtotal					6	24	30	21.6
5	South Street	1.00	Residential	32.00	128.00	32	128	160	115.1
	Zone 5 Subtotal					32	128	160	115.1
TOTAL						56	213	269	193.5

Trip Distribution Report

Percent Of Trips Project

Zone	To Gates					
	1	2	3	4	5	6
1	25.0	25.0	15.0	10.0	15.0	10.0
2	25.0	25.0	15.0	10.0	15.0	10.0
3	0.0	10.0	20.0	5.0	40.0	25.0
4	0.0	10.0	20.0	5.0	40.0	25.0
5	25.0	25.0	15.0	10.0	15.0	10.0
6	0.0	10.0	20.0	5.0	40.0	25.0

Turning Movement Report
Existing Freeman_AM + Residential_AM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Anaheim Blvd & Santa Ana St													
Base	32	504	35	42	871	34	57	208	89	66	182	40	2159
Added	0	22	-9	-15	-18	0	0	0	0	0	0	0	-20
Total	32	526	26	27	853	34	57	208	89	66	182	40	2139
#2 East St & Santa Ana St													
Base	33	341	31	61	718	37	96	174	87	62	122	77	1838
Added	5	15	11	0	1	0	5	5	28	-3	-6	0	61
Relate	0	3	0	0	-2	0	0	0	0	0	0	0	1
Total	38	359	42	61	717	37	101	179	115	59	116	77	1900
#3 Anaheim Blvd & South St													
Base	14	479	44	36	992	20	33	108	46	156	124	56	2109
Added	0	-9	-11	-18	0	0	0	0	0	14	0	22	-2
Relate	0	0	0	0	0	0	0	-2	0	0	2	0	0
Total	14	470	33	18	992	20	33	106	46	170	126	78	2107
#4 East St & South St													
Base	34	269	34	43	760	62	48	162	84	82	99	77	1753
Added	10	3	0	7	21	-2	26	30	57	0	0	1	153
Relate	0	-2	0	3	3	2	-2	0	0	0	0	-2	2
Total	44	270	34	53	784	62	72	192	141	82	99	76	1908
#5 State College Blvd & South St													
Base	72	831	18	15	1346	166	225	8	82	29	9	9	2811
Added	4	0	0	0	0	-3	11	0	26	0	0	0	38
Total	76	831	18	15	1346	163	236	8	108	29	9	9	2849
#6 East St & Ball Rd													
Base	0	0	0	452	0	414	171	1000	0	0	950	176	3163
Added	0	0	0	78	0	0	0	0	0	0	0	13	91
Total	0	0	0	530	0	414	171	1000	0	0	950	189	3254
#7 State College Blvd & Ball Rd													
Base	122	496	112	256	1050	257	223	842	331	268	865	88	4910
Added	11	4	0	13	13	0	0	38	40	0	3	1	123
Total	133	500	112	269	1063	257	223	880	371	268	868	89	5033
#8 Santa Ana Street Driveway													
Base	0	0	0	0	0	0	0	298	0	0	188	0	486
Added	0	0	38	0	0	0	0	0	-25	-2	0	0	11
Proj V	15	0	8	0	0	0	0	0	30	15	0	0	68
Total	15	0	46	0	0	0	0	298	5	13	188	0	565
#9 South Street West Driveway													
Base	0	0	0	0	0	0	0	349	0	0	238	0	587
Added	0	0	0	17	0	5	2	-30	0	0	31	5	30
Proj V	0	0	0	1	0	1	0	38	0	0	1	0	41
Total	0	0	0	18	0	6	2	357	0	0	270	5	658

Volume Northbound Southbound Eastbound Westbound Total
Type Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 South Street East Driveway													
Base	0	0	0	0	0	0	0	349	0	0	238	0	587
Added	0	0	0	96	0	31	-30	17	0	0	5	3	122
Proj V	0	0	0	0	0	1	38	1	0	0	0	21	61
Total	0	0	0	96	0	32	8	367	0	0	243	24	770

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
# 1 Anaheim Blvd & Santa Ana St	LOS Veh	C	LOS Veh	C	-0.006 V/C
	B xxxxxx	0.627	B xxxxxx	0.621	
# 2 East St & Santa Ana St	A xxxxxx	0.526	A xxxxxx	0.549	+ 0.022 V/C
# 3 Anaheim Blvd & South St	A xxxxxx	0.583	A xxxxxx	0.591	+ 0.008 V/C
# 4 East St & South St	C xxxxxx	0.755	D xxxxxx	0.831	+ 0.076 V/C
# 5 State College Blvd & South St	B xxxxxx	0.672	B xxxxxx	0.699	+ 0.027 V/C
# 6 East St & Ball Rd	B xxxxxx	0.638	B xxxxxx	0.641	+ 0.003 V/C
# 7 State College Blvd & Ball Rd	C xxxxxx	0.737	C xxxxxx	0.758	+ 0.021 V/C
# 8 Santa Ana Street Driveway	A	7.2 0.000	B	10.9 0.062	+ 3.685 D/V
# 9 South Street West Driveway	A	0.0 0.000	B	12.6 0.040	+12.579 D/V
# 10 South Street East Driveway	A	7.2 0.000	B	14.7 0.217	+ 7.543 D/V

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #1 Anaheim Blvd & Santa Ana St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.621
Loss Time (sec):      5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        30          Level Of Service:            B
*****
Street Name:          Anaheim Blvd          Santa Ana St
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Permitted          Permitted          Permitted          Permitted
Rights:                 Include            Include            Include            Include
Min. Green:             0 0 0              0 0 0              0 0 0              0 0 0
Y+R:                   4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0        4.0 4.0 4.0
Lanes:                  1 0 1 1 0          1 0 1 1 0          0 0 1! 0 0          0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:               31 494 34          41 854 33          56 204 87          65 178 39
Growth Adj:             1.02 1.02 1.02    1.02 1.02 1.02    1.02 1.02 1.02    1.02 1.02 1.02
Initial Bse:            32 504 35          42 871 34          57 208 89          66 182 40
Added Vol:              0 22 -9            -15 -18 0          0 0 0 0            0 0 0 0
PasserByVol:           0 0 0              0 0 0              0 0 0 0            0 0 0 0
Initial Fut:            32 526 26          27 853 34          57 208 89          66 182 40
User Adj:               1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:                0.92 0.92 0.92    0.92 0.92 0.92    0.92 0.92 0.92    0.92 0.92 0.92
PHF Volume:             34 570 28          29 925 37          62 226 96          72 197 43
Reduct Vol:             0 0 0              0 0 0              0 0 0 0            0 0 0 0
Reduced Vol:           34 570 28          29 925 37          62 226 96          72 197 43
PCE Adj:                1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:                1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:           34 570 28          29 925 37          62 226 96          72 197 43
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1700 1700 1700    1700 1700 1700    1700 1700 1700    1700 1700 1700
Adjustment:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Lanes:                 1.00 1.91 0.09    1.00 1.92 0.08    0.16 0.59 0.25    0.23 0.63 0.14
Final Sat.:           1700 3242 158    1700 3271 129    274 999 426        392 1073 235
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.02 0.18 0.18    0.02 0.28 0.28    0.04 0.23 0.23    0.04 0.18 0.18
Crit Moves:           ****              ****              ****              ****
*****

```

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.549
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level of Service: A

Table with columns for Street Name (East St, Santa Ana St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.591
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 Level of Service: A

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 59 Level Of Service: D

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: B

Table with columns for Street Name (State College Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: B

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for East St and Ball Rd.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves for Capacity Analysis Module.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 State College Blvd & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.758
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: C

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for State College Blvd and Ball Rd.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves for Capacity Analysis Module.

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Santa Ana Street Driveway

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[10.9]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[12.6]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: B[14.7]

Table with columns: Street Name, Proj Driveway, South St, West Bound. Rows: Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2019 NT+Proj_PM
 Command: 2019 NT+Proj_PM
 Volume: OY WP PM
 Geometry: Existing
 Impact Fee: Default Impact Fee
 Trip Generation: Project_PM
 Trip Distribution: Project
 Paths: Default Path
 Routes: Default Route
 Configuration: 2019 NT

Trip Generation Report

Forecast for Residential_PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Santa Ana St	1.00	Residential	62.00	38.00	62	38	100	43.7
	Zone 1 Subtotal					62	38	100	43.7
2	South St Res	1.00	Residential	21.00	13.00	21	13	34	14.8
	Zone 2 Subtotal					21	13	34	14.8
5	South Street	1.00	Residential	127.00	67.00	127	67	194	84.7
	Zone 5 Subtotal					127	67	194	84.7
TOTAL						210	118	328	143.2

Trip Generation Report

Forecast for Existing Freeman_PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
3	Existing Fre	-1.00	Existing Freem	0.00	13.00	0	-13	-13	-5.7
	Zone 3 Subtotal					0	-13	-13	-5.7
4	Existing Fre	-1.00	Existing Freem	0.00	40.00	0	-40	-40	-17.5
	Zone 4 Subtotal					0	-40	-40	-17.5
6	Existing Fre	-1.00	Existing Freem	3.00	43.00	-3	-43	-46	-20.1
	Zone 6 Subtotal					-3	-43	-46	-20.1
TOTAL						-3	-96	-99	-43.2

Trip Distribution Report

Percent Of Trips Project

Zone	To Gates					
	1	2	3	4	5	6
1	25.0	25.0	15.0	10.0	15.0	10.0
2	25.0	25.0	15.0	10.0	15.0	10.0
3	0.0	10.0	20.0	5.0	40.0	25.0
4	0.0	10.0	20.0	5.0	40.0	25.0
5	25.0	25.0	15.0	10.0	15.0	10.0
6	0.0	10.0	20.0	5.0	40.0	25.0

Turning Movement Report
Residential_PM + Existing Freeman_PM

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 Anaheim Blvd & Santa Ana St													
Base	73	1080	49	66	729	55	47	174	43	50	225	55	2648
Added	0	-10	6	9	21	0	0	0	0	-6	0	-10	10
Total	73	1070	55	75	750	55	47	174	43	44	225	45	2658
#2 East St & Santa Ana St													
Base	51	660	39	94	451	45	61	136	33	36	191	71	1867
Added	31	5	0	0	15	6	2	-2	15	11	9	0	92
Relate	0	-4	0	0	1	0	0	0	0	0	0	0	-3
Total	82	661	39	94	467	51	63	134	48	47	200	71	1956
#3 Anaheim Blvd & South St													
Base	49	1055	92	61	725	26	18	140	31	123	175	54	2549
Added	0	6	14	21	-6	0	0	0	0	-6	0	-10	19
Relate	0	0	0	0	0	0	0	2	0	0	-5	0	-3
Total	49	1061	106	82	719	26	18	142	31	117	170	44	2565
#4 East St & South St													
Base	67	633	60	64	400	50	44	134	39	28	194	62	1775
Added	55	23	0	4	11	25	6	9	26	0	29	8	196
Relate	0	2	0	-4	-4	-5	2	0	0	0	0	1	-8
Total	122	658	60	64	407	70	52	143	65	28	223	71	1963
#5 State College Blvd & South St													
Base	131	1218	60	19	834	212	153	21	44	32	27	14	2765
Added	26	0	0	0	0	11	0	0	12	0	0	0	49
Total	157	1218	60	19	834	223	153	21	56	32	27	14	2814
#6 East St & Ball Rd													
Base	0	0	0	308	0	301	354	1188	0	0	1107	347	3605
Added	0	0	0	37	0	0	0	0	0	0	0	79	116
Total	0	0	0	345	0	301	354	1188	0	0	1107	426	3721
#7 State College Blvd & Ball Rd													
Base	308	988	174	261	474	154	247	1084	167	88	991	195	5132
Added	39	13	0	5	7	0	0	15	22	0	39	13	153
Total	347	1001	174	266	481	154	247	1099	189	88	1030	208	5285
#8 Santa Ana Street Driveway													
Base	0	0	0	0	0	0	0	220	0	0	240	0	460
Added	-17	0	15	0	0	0	0	0	16	47	0	0	61
Proj V	26	0	14	0	0	0	0	0	0	0	0	0	40
Total	9	0	29	0	0	0	0	220	16	47	240	0	561
#9 South Street West Driveway													
Base	0	0	0	0	0	0	0	246	0	0	310	0	556
Added	0	0	0	5	0	-5	5	30	0	0	-11	16	40
Proj V	0	0	0	4	0	9	0	2	0	0	28	0	43
Total	0	0	0	9	0	4	5	278	0	0	327	16	639

Volume Northbound Southbound Eastbound Westbound Total
Type Left Thru Right Left Thru Right Left Thru Right Left Thru Right Volume

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#10 South Street East Driveway													
Base	0	0	0	0	0	0	0	246	0	0	310	0	556
Added	0	0	0	35	0	-11	30	5	0	0	16	94	169
Proj V	0	0	0	15	0	28	2	5	0	0	0	1	51
Total	0	0	0	50	0	17	32	256	0	0	326	95	776

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
# 1 Anaheim Blvd & Santa Ana St	LOS Veh	C	LOS Veh	C	-0.006 V/C
	B xxxxxx	0.671	B xxxxxx	0.666	
# 2 East St & Santa Ana St	A xxxxx	0.542	A xxxxx	0.549	+ 0.007 V/C
# 3 Anaheim Blvd & South St	B xxxxxx	0.645	B xxxxxx	0.663	+ 0.017 V/C
# 4 East St & South St	B xxxxxx	0.660	C xxxxxx	0.703	+ 0.043 V/C
# 5 State College Blvd & South St	A xxxxx	0.506	A xxxxx	0.532	+ 0.026 V/C
# 6 East St & Ball Rd	C xxxxxx	0.750	C xxxxxx	0.766	+ 0.016 V/C
# 7 State College Blvd & Ball Rd	C xxxxxx	0.738	C xxxxxx	0.753	+ 0.015 V/C
# 8 Santa Ana Street Driveway	A	0.0 0.000	B	10.4 0.036	+10.447 D/V
# 9 South Street West Driveway	A	0.0 0.000	B	12.3 0.020	+12.261 D/V
# 10 South Street East Driveway	A	7.2 0.000	B	14.4 0.124	+ 7.211 D/V

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

```

*****
Intersection #1 Anaheim Blvd & Santa Ana St
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.666
Loss Time (sec):      5           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        34          Level Of Service:            B
*****
Street Name:          Anaheim Blvd          Santa Ana St
Approach:              North Bound          South Bound          East Bound          West Bound
Movement:              L - T - R          L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|
Control:                Permitted          Permitted          Permitted          Permitted
Rights:                 Include           Include           Include           Include
Min. Green:             0 0 0             0 0 0             0 0 0             0 0 0
Y+R:                   4.0 4.0 4.0       4.0 4.0 4.0       4.0 4.0 4.0       4.0 4.0 4.0
Lanes:                  1 0 1 1 0         1 0 1 1 0         0 0 1! 0 0         0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:               72 1059 48         65 715 54         46 171 42         49 221 54
Growth Adj:             1.02 1.02 1.02    1.02 1.02 1.02    1.02 1.02 1.02    1.02 1.02 1.02
Initial Bse:            73 1080 49         66 729 55         47 174 43         50 225 55
Added Vol:              0 -10 6            9 21 0            0 0 0             -6 0 -10
PasserByVol:            0 0 0             0 0 0             0 0 0             0 0 0
Initial Fut:            73 1070 55         75 750 55         47 174 43         44 225 45
User Adj:               1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
PHF Adj:                0.96 0.96 0.96    0.96 0.96 0.96    0.96 0.96 0.96    0.96 0.96 0.96
PHF Volume:             77 1121 58         79 786 58         49 183 45         46 236 47
Reduct Vol:             0 0 0             0 0 0             0 0 0             0 0 0
Reduced Vol:           77 1121 58         79 786 58         49 183 45         46 236 47
PCE Adj:                1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
MLF Adj:                1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
FinalVolume:           77 1121 58         79 786 58         49 183 45         46 236 47
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:              1700 1700 1700    1700 1700 1700    1700 1700 1700    1700 1700 1700
Adjustment:            1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00    1.00 1.00 1.00
Lanes:                 1.00 1.90 0.10    1.00 1.86 0.14    0.18 0.66 0.16    0.14 0.72 0.14
Final Sat.:           1700 3234 166    1700 3167 233    302 1122 276    238 1219 244
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:               0.05 0.35 0.35    0.05 0.25 0.25    0.03 0.16 0.16    0.03 0.19 0.19
Crit Moves:            ****          ****          ****          ****
*****

```

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 East St & Santa Ana St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.549
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 26 Level Of Service: A

Table with columns for Street Name (East St, Santa Ana St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Anaheim Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.663
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 34 Level Of Service: B

Table with columns for Street Name (Anaheim Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 East St & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 38 Level of Service: C

Table with columns for Street Name (East St, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Related Pro, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 State College Blvd & South St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.532
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 25 Level of Service: A

Table with columns for Street Name (State College Blvd, South St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Table for Volume Module with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 East St & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.766
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 46 Level Of Service: C

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for East St and Ball Rd.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows for East St and Ball Rd.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 State College Blvd & Ball Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.753
Loss Time (sec): 5 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: C

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for State College Blvd and Ball Rd.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat. Rows for State College Blvd and Ball Rd.

Table with columns: Capacity Analysis Module, Vol/Sat, Crit Moves.

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Santa Ana Street Driveway

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[10.4]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gap, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 South Street West Driveway

Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[12.3]

Table with columns: Street Name, Proj Driveway, North Bound, South Bound, East Bound, West Bound, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with columns: Critical Gap, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 South Street East Driveway

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[14.4]

Table with columns: Street Name, Proj Driveway, South St, West Bound. Rows: Approach, Movement, Control, Rights, Lanes.

Volume Module:

Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, Proj Vol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume.

Critical Gap Module:

Table with columns: Critical Gp, FollowUpTim.

Capacity Module:

Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

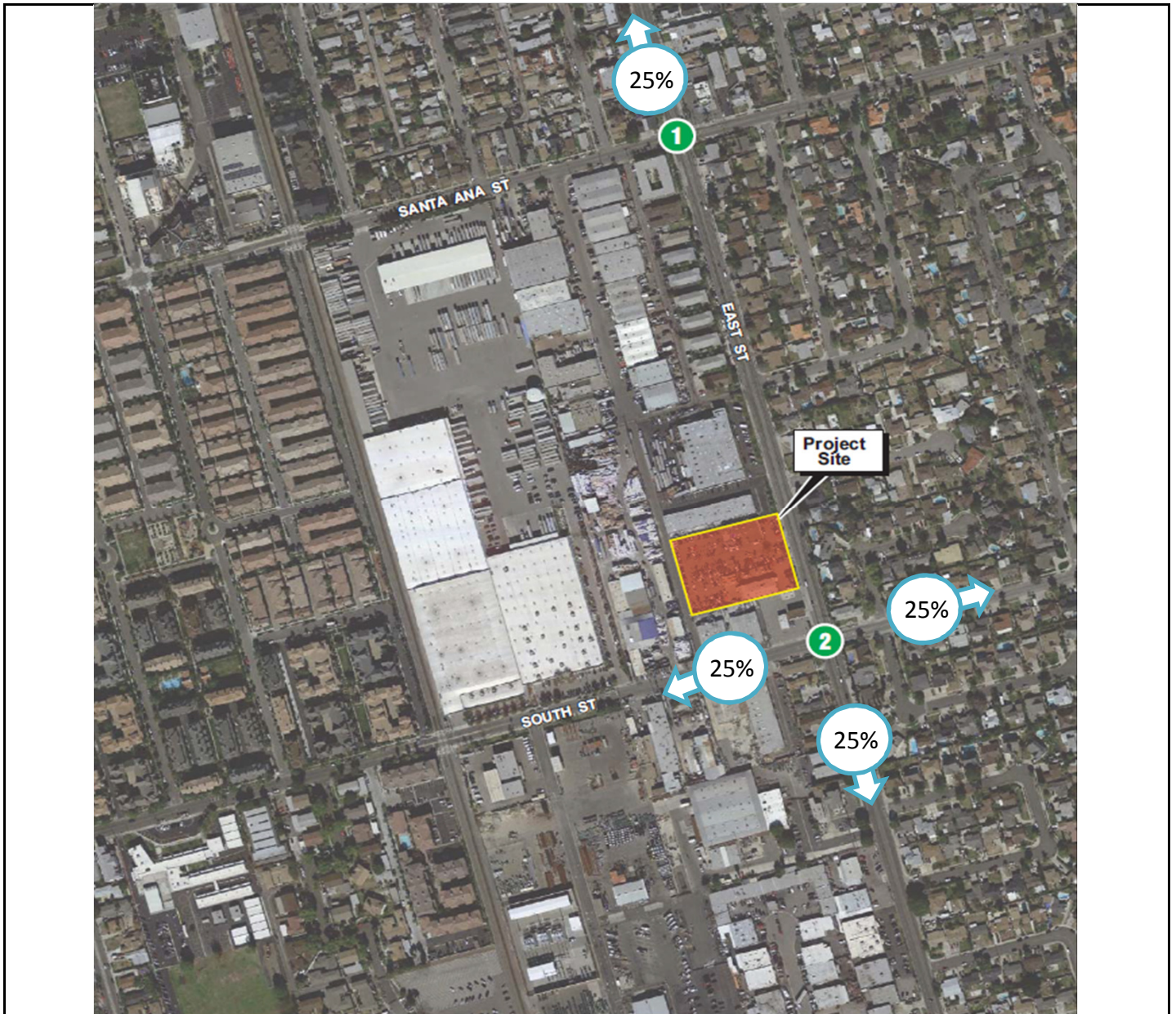
Level Of Service Module:

Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

APPENDIX C

CUMULATIVE PROJECTS INFORMATION



1 East Street/Santa Ana Street	2 East Street/South Street	

LSA


XXX / YYY AM / PM Volume
 Trip Distribution Percentage

FIGURE 6

East and South Street
 Project Trip Distribution and Assignment